FOR PLAB 1

REVISED AND UPDATED

VERSION

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EXPLAINED BY

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1700 MCQ REVISED VERSION

TOPIC WISE

1. CARDIOVASCULAR SYSTEM

1. A 45-year-old lady has 10months history of shortness of breath. She is found to have irregularly irregular pulse and loud P2 with fixed splitting and ejection systolic murmur in left 2nd intercostal space. What is the probable diagnosis?
   A. TOF
   B. ASD
   C. VSD
   D. PDA
   E. CoA

Ans. The key is B. Atrial septal defect. [Most adult patients with a large defect present with (some or all) symptoms including fatigue, exercise intolerance, palpitations, syncope, shortness of breath, peripheral oedema, thromboembolic manifestations, and cyanosis. Arrhythmias are more common after 40 years of age. The common arrhythmias are atrial flutter and atrial fibrillation. Auscultatory findings are:

- Loud P2 with fixed splitting of 2nd heart sound. A left-to-right shunt caused increased loading on the right ventricle, leading to delayed emptying and therefore delayed closure of the pulmonary valve which caused this splitting.
- Soft systolic ejection murmur in the pulmonary area at the upper left sternal border.
- A diastolic rumble over the left lower sternum because of increased flow through the tricuspid valve.

Classic auscultatory findings as described above are not present unless the shunt is reasonably large.

2. A 64-year-old man has recently suffered from an MI and is on aspirin, atorvastatin and ramipril. He has been having trouble sleeping and has been losing weight for the past 4 months. He doesn't feel like doing anything he used to enjoy and has stopped socializing. He says he gets tired easily and can't concentrate on anything. What is the most appropriate treatment?
   A. Lofepramine
   B. Dosulepin
   C. Citalopram
   D. Fluoxetine

E. Phenelzine

Ans. The key is C. Citalopram. [Depression is common among patients recovering from a myocardial infarction. Approximately 1 in 6 patients with MI experience major depression and at least twice as many as that have significant symptoms of depression soon after the event. Post-MI depression is an independent risk factor for increased mortality (as depression is clearly associated with poor compliance with risk-reducing recommendations). For treating this depression SSRIs are recommended as first line agent and among SSRIs Sertraline is the drug of choice for ischemic heart disease. Next choice is citalopram (as it is often related to torsades de pointes it is not 1st choice). If SSRI cannot be used Mirtazapine is recommended as next antidepressant].

3. A 75-year-old man collapsed while walking in his garden. He recovered fully within 30 minutes with BP 110/80 mmHg and regular pulse of 70bpm. He has a systolic murmur on examination. His activities have been reduced lately which he attributes to old age. What is the definitive diagnostic investigation that will assist you with his condition?
   A. ECG
   B. Echo
   C. 24h ECG monitoring
   D. 24h BP monitoring
   E. Prv CIN

Ans. The key is B. Echo. [This is a case of exercise related syncope. Exercise related syncopes are of 2 types, i) Syncope during exercise or exertional syncope (this is ominous) and ii) Post exercise syncope (this is benign). Few examples of Syncope during exercise- arrhythmia, valvular heart disease, structural heart disease like hypertrophic cardiomyopathy, coronary artery disease, myocarditis etc.Example of Syncope following exercise- orthostatic hypotension as in case of exercise in hot environment with vasodilation and increased sweating, prolonged standing, vasovagal related to sudden decrease in venous return etc. Given cause is exertional syncope and systolic murmur indicates valvular lesion (particularly aortic stenosis) in this elderly man].

4. A 65-year-old man with hypertension presents with lower abdominal pain and back pain. An expansive abdominal mass is palpated lateral and superior to the umbilicus. What is the single most discriminating investigation?
   A. Laparascopy
   B. KUB XR
   C. Pelvic US
   D. Rectal exam
   E. Abdominal US

Ans. The key is E. Abdominal US. [Abdominal aortic aneurysm (AAA or triple A) is a localized enlargement of the abdominal aorta such that the diameter is greater than 3 cm or more than 50% larger than

normal. They usually cause no symptoms, except during rupture. Occasionally, abdominal, back, or leg pain may occur.Single most discriminating investigation is abdominal ultrasound].

5. A54-year-old man has recently been diagnosed with moderate depression. He has history of MI and is suffering from insomnia. What is the drug of choice for him?
   A. Citalopram
   B. Lofepramine
   C. ECT
   D. Haloperidol
   E. Diazepam

Ans. The key is A. Citalopram. [Depression is common among patients recovering from a myocardial infarction. Approximately 1 in 6 patients with MI experience major depression and at least twice as many as that have significant symptoms of depression soon after the event. Post-MI depression is an independent risk factor for increased mortality (as depression is clearly associated with poor compliance with risk-reducing recommendations). For treating this depression SSRIs are recommended as first line agent and among SSRIs Sertraline is the drug of choice for ischemic heart disease. Next choice is citalopram (as it is often related to torsades de pointes it is not 1st choice). As the patient has insomnia and citalopram can cause insomnia too, it should be taken in the morning. If SSRI cannot be used Mirtazapine is recommended as next antidepressant].

6. Which finding, on clinical examination of the pulse, suggests a diagnosis of hypertrophic obstructive cardiomyopathy (HOCM)?
   A. Irregularly irregular pulse
   B. Pulsus alternans
   C. Pulsus bigeminus
   D. Pulsus bisferiens
   E. Pulsus paradoxus

Ans. The key is D. Pulsus bisferiens. [Pulsus bisferiens, is a sign where, on palpation of the pulse, a double peak per cardiac cycle can be appreciated. Bisferious means striking twice. Classically, it is detected when aortic insufficiency exists in association with aortic stenosis, but may also be found in hypertrophic obstructive cardiomyopathy].

7. A man with prosthetic heart valve underwent hemicolectomy and after some days complains of left hypochondriac pain, fever and has a systolic murmur. What is the next investigation to ascertain the cause of HF?
   A. CT
   B. Blood culture
   C. ECG
   D. MRI
   E. Radioactive thyroid scan

Ans. The key is B. Blood culture. [The diagnosis is infective endocarditis. Fever + new murmur suggest endocarditis until proven otherwise.Important risk factors: dermatitis, IV injections, renal failure, organ transplantation, DM, post operative wound. Risk of developing endocarditis in following abnormalities of valves: aortic or mitral valve disease, tricuspid valve in IV drug users, prosthetic valves].

8. A 45-year-old lady has 10months history of SOB (shortness of breath). She is found to have irregularly irregular pulse and loud P2 with fixed splitting and ejection systolic murmur in left 2nd ICS. What is the probable diagnosis?
   A. TOF
   B. ASD
   C. VSD
   D. PDA
   E. CoA

Ans. The key is B. ASD (atrial septal defect). [Diagnosis is ASD with atrial fibrillation. [i) atrial fibrillation = irregularly irregular pulse. ii) ASD = SOB, fixed splitting with loud P2, ESM in pulmonary area]. This picture is typical. One should not misdiagnose SOB, ESM in pulmonary area and loud P2 as pulmonary hypertension (though in elderly this can develop with ASD)].

9. A 72-year-old man has been advised to have antibiotic prophylaxis for some years now before dental treatment. He has never experienced chest pain. Three weeks ago, he noticed breathlessness on exertion and for one week he had orthopnea. His pulse is normal. What is the most probable diagnosis?
   A. Aortic regurgitation
   B. Ischemic mitral regurgitation
   C. Mitral valve prolapse
   D. Pulmonary stenosis
   E. Mitral valve stenosis

Ans. The kay is E. Mitral valve stenosis. [Antibiotic prophylaxis points towards rheumatic fever. Present complaints of breathlessness and orthopnea suggests probable valvular disease. Mitral stenosis is the most common valvular complication of rheumatic fever].

10. A 67-year-old man presents with palpitations. ECG shows an irregular rhythm and HR140bpm. He is otherwise stable, BP124/80mmHg. What is the most appropriate management?
    A. Bisoprolol
    B. ACEi
    C. Ramipril
    D. Digoxin

Ans. The key is A. Bisoprolol. [In acute AF (<48h) if stable, rate control by verapamil 40-120mg/8hourly po or bisoprolol 2.5-5mg/day po. In chronic AF (>48h) rate control with beta-blocker or rate limiting CCB].

11. A 67-year-old man had successful thrombolysis for an inferior MI 1 month ago and was discharged after 5days. He is now readmitted with pulmonary edema. What is the most probable diagnosis?
    A. Aortic regurgitation
    B. Ischemic mitral regurgitation
    C. Mitral valve prolapse
    D. Pulmonary stenosis
    E. Rheumatic mitral valve stenosis

Ans. The key is B. Ischaemic mitral regurgitation. [ischaemic mitral regurgitation > raised pulmonary capillary pressure > pulmonary oedema. Inferior myocardial infarction causes left ventricular remodeling, which displaces posterior papillary muscle away from its normal position, leading to ischemic mitral regurgitation].

12. A 60-year-old lady who had stroke 3 years ago now reports having increased dyspnea on exertion and atrial fibrillation. CXR: straight left border on the cardiac silhouette. What is the most probable diagnosis?
    A. Aortic regurgitation
    B. Ischemic mitral regurgitation
    C. Mitral valve prolapse
    D. Pulmonary stenosis
    E. Rheumatic mitral valve stenosis

Ans. The key is E. Rheumatic mitral valve stenosis. [Points in favour of rheumatic valve stenosis: i) Dyspnoea on exertion ii) Straight left border of the cardiac silhouette. To straighten the left heart border it requires underfilling of the left ventricle and aorta which occurs in mitral stenosis. iii) Atrial fibrillation is a common association].

13. A 60-year-old diabetic complains of pain in thigh and gluteal region on walking up the stairs for the last 6 months. She is a heavy smoker and has ischemic heart disease. What is the most appropriate diagnosis?
    A. Thromboangitis Obliterans
    B. Sciatica
    C. DVT
    D. Atherosclerosis
    E. Embolus

Ans. The key is D. Atherosclerosis. [Atherosclerotic narrowing of vessels are producing these symptoms. Why atherosclerosis? There is other vasculopathy as IHD. Smoking is a risk factor for atherosclerosis. Now if we think of exclusion: i) It is not sciatica as sciatica pain is worse when sitting. There may be weakness, numbness, difficulty moving the leg or foot. A constant pain on one side of the rear. A shooting pain that makes it difficult to stand up. ii) It is not DVT as no swelling, warmth or redness of skin are there iii) It is not thromboangitis obliterans as pulses are ok, no colour change or reduced hair

growth, no ulceration or gangrene iv) not embolism as no pain (rest pain), no numbness, not pale or blue, no rash, no ulceration of skin].

14. A 50-year-old man has a stab wound to his left anterior chest at the level of the 4th ICS. He has a BP 80mmHg, pulse130bpm. His neck veins are dilated and his heart sounds are faint. His trachea is central. What is the most appropriate diagnosis?
    A. Cardiac tamponade
    B. Diaphragmatic rupture
    C. Fractured ribs
    D. Tension pneumothorax
    e. Traumatic rupture of aorta

Ans. The key is A. Cardiac tamponade. [Beck's triad is a collection of three medical signs associated with acute cardiac tamponade, an emergency condition wherein fluid accumulates around the heart and impairs its ability to pump blood. The signs are low arterial blood pressure, distended neck veins, and distant, muffled heart sounds].

15. A 28-year-old man with complains of headache and nose bleeds also has pain in the lower limbs on exertion. Examination: radio-femoral delay, cold legs with weak pulse and mild systolic murmur with normal S1S2. What is the most probable diagnosis?
    A. TOF
    B. ASD
    C. VSD
    D. PDA
    E. CoA (coarctation of aorta)

Ans. The key is E. CoA (coarctation of aorta). [headache and nosebleeds - >hypertension, pain in lower limb on exertion -> as reduced blood supply to leg due to coarctation.Radio-femoral delay, cold legs with week pulse, mid-systolic murmur are all features of coarctation of aorta].

16. A 75-year-old lady who had mitral valve replacement 13 years ago has developed recurrent breathlessness. Her husband has noticed prominent pulsation in her neck. She complains of abdominal pain and ankle swelling. What is the most probable diagnosis?
    A. Aortic regurgitation
    B. Mitral regurgitation
    C. Mitral stenosis
    D. Tricuspid regurgitation
    E. Pulmonary stenosis

Ans. The key is D. Tricuspid regurgitation. [Long standing complication of mitral valve replacement is tricuspid regurgitation. In tricuspid regurgitation there is recurrent breathlessness (mostly exertional), prominent pulsation in the neck (giant V wave), abdominal pain due to enlarged congested liver (due to CHF), ankle oedema due to right heart failure].

17. A 40-year-old man collapsed at home and died. The GPs report says he suffered from T2DM and BMI=35. What is the most likely cause of death?
    A. MI (myocardial infarction)
    B. DM (diabetes mellitus)
    C. HF (heart failure)
    B. PE (pulmonary embolism)
    E. Renal failure

Ans. The key is A. MI. [Diabetes mellitus and obesity are risk factors to developing MI. In diabetics MI pain is not felt if there occurs autonomic neuropathy. But if there is no autonomic neuropathy diabetics will feel the pain of MI].

18. An 18-year-old man complains of fatigue and dyspnea. He has left parasternal heave and systolic thrill with a harsh pan-systolic murmur at left parasternal edge. What is the most probable diagnosis?
    A. TOF (tetralogy of fallot)
    B. ASD (atrial septal defect)
    C. VSD (ventricular septal defect)
    D. PDA (patent ductus arteriosus)
    E. TGA (transposition of great arteries)

Ans. The key is C. VSD. [A small ventricular septal defect may cause no problems, and many small VSDs close on their own. Medium or larger VSDs may need surgical repair early in life to prevent complications. If not treated may cause symptoms like shortness of breath, a feeling of tiredness or weakness (especially during exercise), poor appetite, and trouble gaining weight.left parasternal heave and systolic thrill with a harsh pan-systolic murmur at left parasternal edge are examination findings of moderate to severe ventricular septal defect].

19. An MI patient who is already on aspirin no longer smokes and his cholesterol, ECG, echo and BP are normal. Choose the best option for him:
    A. Give statin
    B. Give statin+warfarin
    C. Low cholesterol diet
    D. Statin+ACEi

    Ans. The key is D. Statin + ACEi.
    [Offer all people who have had an acute MI treatment with the following drugs:
    ACE (angiotensin-converting enzyme) inhibitor
    dual antiplatelet therapy (aspirin plus a second antiplatelet agent)
    beta-blocker
    statin. (2007, amended 2013) [NICE guideline].

20. In 85% of the population this artery is dominant. What is the single most appropriate option?

A. Left ant descending artery
B. Coronary sinus
C. Circumflex artery
D. Left main stem, post descending artery
E. Right coronary artery

Ans. The key is E. Right coronary artery. [If the posterior discending artery is supplied by the circumflex artery then it is left dominant and if posterior descending artery is supplied by the right coronary artery then it is right dominant. As in 85% of population posterior descending artery is supplied by right coronary artery it is called the dominant that is right coronary artery is dominant].

21. A60-year-oldpatiet who has had a MI a week back presents with dyspnea and pericardial rub. ECG shows ST elevation. CXR: loss of margin at costo-vertebral angle. What is the single most likely cause?
    A. Cardiac tamponade
    B. Mitral regurge
    C. Dressler's syndrome
    D. Atrial fib
    E. Emboli

Ans. The key is C. Dressler's syndrome. [Dressler syndrome is a secondary form of pericarditis that occurs in the setting of injury to the heart or the pericardium such as heart attack (myocardial infarction), heart surgery, heart procedure, or chest trauma due to an accident or injury. It is also known as post-myocardial infarction syndrome, post-cardiac injury syndrome, or post-pericardiotomy syndrome. Dressler's syndrome is characterized by combinations of pericarditis, pleuritis, and pneumonitis. This pleuritis is responsible for pleural effusion leading to loss of margin at costo-vertebral angle. The disease consists of a persistent low-grade fever, chest pain (usually pleuritic), pericarditis (usually evidenced by a pericardial friction rub, chest pain worsening when recumbent, and diffuse ST elevation with PR segment depression), and/or a pericardial effusion. The symptoms tend to occur 2–3 weeks after myocardial infarction but can also be delayed a few months. It tends to subside in a few days, and very rarely leads to pericardial tamponade].

22. A-57-year old woman who is suffering from hypertension, presented to the hospital with complaints ofrecurrent falls when trying to get out of bed or getting up from sitting. She is on some anti-hypertensive therapy with no other medical problems. What is the cause of her fall?
    A. CCB
    B. Vertibrobasiliar insufficiency
    C. Thiazide
    D. Hypoglycemia
    E. Infection

Ans. The key is C. Thiazide. [It causes postural hypotension by volume depletion].

23. A 47-year-old man with history of IHD complains of chest pain with SOB on exertion over the past few days. ECG normal, Echo reveals decreased EF (ejection fraction) and decreased septal wall thickness. What is the most likely diagnosis?
    A. Dilated CM
    B. Constrictive pericarditis
    C. Amyloidosis
    D. Subacute endocarditis

Ans. The key is A. Dilated CM. [Dilated cardiomyopathy (DCM) is a condition in which the heart becomes enlarged and cannot pump blood effectively. Symptoms vary from none to feeling tired, leg swelling, and shortness of breath. It may also result in chest pain or fainting. Causes include genetics, alcohol, cocaine, certain toxins, complications of pregnancy, and certain infections. Coronary artery disease and high blood pressure may play a role, but are not the primary cause].

24. A 66-year-old man has the following ECG. What is the most appropriate next step in management?

    A. Metoprolol
    B. Digoxin
    C. Carotid sinus massage
    D. Adenosine
    E. Amiodarone.

Ans. The key is A. Metoprolol. [P waves are replaced by fibrillatory f-waves. Irregular R-R intervals. Diagnosis is atrial fibrillation].

25. ECG of an 80-year-old patient shows saw-tooth like waves, QRS complex of 80ms duration,ventricular rate=150/min and regular R-R interval. What is the most porbable diagnosis?
    A. Atrial fib
    B. Atrial flutter
    C. SVT
    D. Mobitz type1 second degree heart block
    E. Sinus tachycardia

Ans. The key is B. Atrial flutter. [Saw-tooth like waves, normal QRS complex of 80 ms (normal range 70-100 ms), ventricular rate of 150/min and regular R-R intervalsare diagnostic of atrial flutter].

26. A 54-year-old patient 7 days after a total hip replacement presents with acute onset breathlessness and raised JVP. Which of the following investigation will be most helpful in leading to a diagnosis?
    A. CXR
    B. CTPA
    C. V/Q scan
    D. D-Dimer
    E. Doppler US of legs

Ans. The key is B. CTPA. [The patient has a +ve two level PE Wells score (if it was negative we should do D-Dimer) and there is no renal impairment or history suggestive of allergy to contrast media (if these were present we should have gone for VQ scan) the investigation of choice is PTCA. NICE guidelines].

27. A 61-year-old man has been referred to the OPD with frequent episodes of breathlessness and chest pain along with palpitations. He has a regular pulse rate 60bpm. ECG sinus rhythm. What is the most appropriate investigation to be done?

    A. Cardiac enzymes

    B. CXR

    C. ECG

    D. Echo

    E. 24h ECG

Ans. The key is E. 24h ECG. [Episodic breathlessness, chest pain and palpitations are suggestive of paroxysmal arrhythmia. As paroxysmal arrhythmia it will only be evident during attack and in between attacks ECG will be normal (as in given case). So to confirm the diagnosis 24h ECG should be done].

Indications of 24 h ambulatory holter monitoring:

1. To evaluate chest pain not reproduced with exercise testing
2. To evaluate other signs and symptoms that may be heart-related, such as fatigue, shortness of breath, dizziness, or fainting
3. To identify arrhythmias or palpitations
4. To assess risk for future heart-related events in certain conditions, such as idiopathic hypertrophic cardiomyopathy, post-heart attack with weakness of the left side of the heart, or Wolff-Parkinson-White syndrome
5. To assess the function of an implanted pacemaker
6. To determine the effectiveness of therapy for complex arrhythmias

28. A woman had an MI. She was breathless and is put on oxygen mask and GTN, her chest pain has improved. Her HR 40bpm. ECG shows ST elevation in leads I, II, III. What is your next step?

A. LMWH
B. Streptokinase
C. Angiography
D. Continue current management
E. None

Ans. The key is C. Angiography. [If no time limit is mentioned it is assumed that patient has reached within time required for primary PCI. There is general agreement that PCI should be considered if there is an ST-elevation ACS, if symptoms started up to 12 hours previously].

29. A 45-year-old man who is diabetic and hypertensive but poorly compliant has chronic SOB (Shortness Of Breath), develops severe SOB and chest pain. Pain is sharp, increased by breathing and relieved by sitting forward. What is the single most appropriate diagnosis?
    A. MI
    B. Pericarditis
    C. Lung cancer
    D. Good pastures syndrome
    E. Progressive massive fibrosis

Ans. The key is B. Pericarditis. [Nature of pain i.e. sharp pain increased by breathing and relieved by sitting forward is suggestive of pericarditis].

[Nature of pericardial pain: the most common symptom is sharp, stabbing chest pain behind the sternum or in the left side of your chest. However, some people with acute pericarditis describe their chest pain as dull, achy or pressure-like instead, and of varying intensity.

The pain of acute pericarditis may radiate to your left shoulder and neck. It often intensifies when you cough, lie down or inhale deeply. Sitting up and leaning forward can often ease the pain].

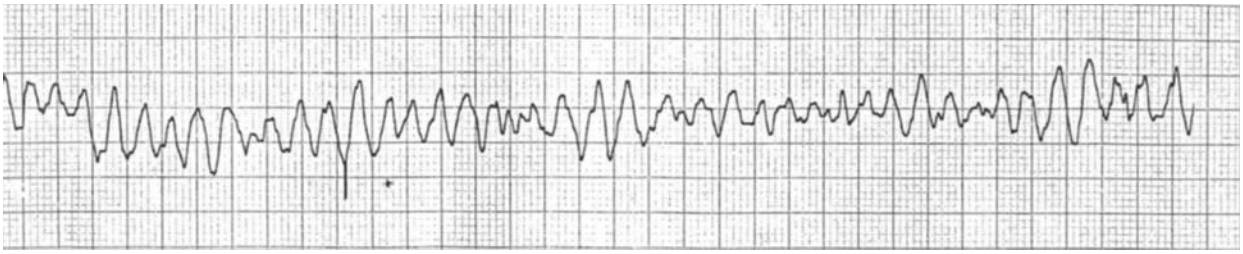
30. A 50-year-old lady presents to emergency department with sudden severe chest pain radiating to both shoulder andaccompanying SOB (shortness of breath). Examination: cold peripheries and paraparesis. What is the single most appropriate diagnosis?
    A. MI
    B. Aortic dissection
    C. Pulmonary embolism
    D. Good pastures syndrome
    E. Motor neuron disease

Ans. The key is B. Aortic dissection. [Cold peripheries due to reduced blood flow to distal parts of dissection. Paraperesis or paraplegia due to spinal cord ischemia and infarction as a presenting manifestation of aortic dissection has been found in 2 to 5 % of patients. Usual management for type A dissection is surgery and for type B is conservative].

31. A 28-year-old man presents with rapid pounding in the chest. He is completely conscious throughout. The ECG was taken (SVT). What is the 1st medicine to be used to manage this condition?
    A. Amiodarone
    B. Adenosine
    C. Lidocaine
    D. Verapamil
    E. Metoprolol

Ans. The key is B. Adenosine. [Management of SVT: i) vagal manoeuvres (carotid sinus message, Valsalva manoeuvre) transiently increase AV-block, and unmask the underlying atrial rhythm. If unsuccessful then the first medicine used in SVT is adenosine, which causes transient AV block and works by i) transiently slowing ventricles to show the underlying atrial rhythm ii) cardioverting a junctional tachycardia to sinus rhythm].

32. A 72-year-old man is found to be not breathing in the CCU with the following rhythm. What is the most likely diagnosis?



    A. SVT (supraventricular tachycardia)
    B. VT (Ventricular
    C. VF
    D. Atrial fib
    E. Atrial flutter
    Ans. The key is C. VF. [Ventricular fibrillation is when the heart quivers instead of pumping due to disorganized electrical activity in the ventricles.Diagnosis is by an electrocardiogram (ECG) showing irregular unformed QRS complexes without any clear P waves].

33. A 65-year-old male presents with dyspnea and palpitations. Examination: pulse 170bpm, BP 120/80mmHg. Carotid massage has been done as first instance. What is the next step of the management?
    A. Adenosine
    B. Amlodipine
    C. DC cardioversion
    D. Lidocaine
    E. Beta blocker

Ans. The key is A. Adenosine. [The likely diagnosis is SVT. 1st vagal maneuvers (carotid sinus massage, Valsalva manoeuvre), if failsthen next is to give iv adenosine].

34. A 55-year-old woman was found collapsed at home, paramedics revived her but in the ambulance she had a cardiac arrest and couldn't be saved. The paramedic's report tells that the woman was immobile lately due to hip pain and that they found ulcers on the medial side of ankle. She had DM and was on anti-diabetics. What is the cause of her death?
    A. Acute MI
    B. DKA
    C. Pulmonary embolism
    D. Acute pericarditis
    E. Cardiac tamponade

Ans. The key is C. Pulmonary embolism. [Immobilization due to hip pain may resulted in DVT and later pulmonary embolism].

35. A 58-year-old type 1 diabetic on anti hypertensive therapy for 13 years developed central chest pain for 45 minutes while driving along with cold sweating and dyspnea. What is the single most appropriate diagnosis?
    A. MI
    B. Pericarditis
    C. Pulmonary embolism
    D. Costochondritis
    E. Pneumothorax

Ans. The key is A. MI. [The given picture of central chest pain for 45 minutes (more than 30 minutes), sweating and dyspnoea with major risk factor of DM and Htn suggest the diagnosis of MI. In pericarditis pain is aggravated by inspiration or lying flat and relieved by leaning forward. Pericardial rub may present and there may be fever. In pneumothorax pain is not central but pleuritic. Pulmonary embolism causes dyspnoea and pleuritic chest pain. In costrochondritis localized pain/tenderness at the costochondral junction enhanced by motion, coughing, or sneezing].

36. A 45-year-old manual worker presented with a 2hour history of chest pain radiating to his left arm. His ECG is normal. What is the single most appropriate investigation?
    A. Cardiac enzymes
    B. CXR
    C. CT
    D. ECG
    E. V/Q scan

Ans. The key is A. Cardiac enzymes. [Probable diagnosis is MI. In MI often ECG doesn't show the changes in early stage. Cardiac enzymes will help in such cases].

37. A 50-year-old man with DM suddenly develops persistent crushing central chest pain radiating to the neck. What is the single most appropriate diagnosis?
    A. Angina
    B. Costochondritis (tietz's disease)

C. Dissecting aneurysm
D. MI
E. Pulmonary embolism

Ans. The key is D. MI. [The features described is insufficient and can be seen in both aortic dissection and MI. However dissection pain is described as tearing and crushing pain is often used for MI pain. Both dissection and MI can have pain radiation to neck. History of diabetes goes with mi as it is a recognized risk factor for MI. Some may argue in DM MI will be painless! But it is not always the case. MI is only painless when autonomic neuropathy becomes well established].

38. A 50-year-old woman returned by air to the UK from Australia. 3days later she presented with sharp chest pain and breathlessness. Her CXR and ECG are normal. What is the single most appropriate investigation?
    A. Bronchoscopy
    B. Cardiac enzymes
    C. CT
    D. MRI
    E. Pulse oximetry
    F. V/Q scan
    G. CTPA

Ans. The key is G. CTPA. [Wells score is >4. So single most appropriate investigation is CTPA].

39. A 48-year-old presents with severe chest pain since the last 40mins. In the emergency department he is given oxygen, GTN, morphine. ECG shows ST elevation. Bloods- increased troponin levels. What is the next step of management?
    A. Beta blockers
    B. Percutaneous angiography
    C. Anticoagulant & heparin
    D. Clopidogrel
    E. Aspirin

Ans. The key is E. Aspirin. [In any case of IHD, most important initial management is aspirin (unless decided to go for thrombolysis). Aspirin, the most widely used anti- platelet agent, is effective, safe, and inexpensive and is recommended for all patients undergoing PCI. Patients already on daily aspirin therapy should be given 75–325 mg of aspirin before PCI; those not taking aspirin should be given 500 mg at least 3 h before the procedure or 300 mg intravenously immediately before the procedure. After PCI, aspirin should be continued at 75–160 mg/day indefinitely].

40. A 65-year-old man with hypertension develops gingival hyperplasia. What is the single most likely cause?
    A. ACEi
    B. Beta blockers
    C. Crohns disease

D. Nifedipine
E. Sarcoidosis

Ans. The key is D. Nifedipine. [Gingival hyperplasia is a recognized side effect of calcium channel blockers].

41. A 65-year-old woman is undergoing coronary angiography. What measure will protect her kidneys from contrast?
    A. Furosemide
    B. Dextrose
    C. 0.45% saline
    D. 0.9% saline

Ans. The key is D. 0.9% saline. [Contrast media that pushed in blood are nephrotoxic and IV normal saline will help to maintain adequate hydration to pass it out with urine].

42. A 53-year-old had a dental extraction after which he recently had a mitral valve prolapse, high temp of 39C, cardiac failure and new cardiac murmur. What is the single most likely diagnosis?
    A. Atheroma
    B. Congenital
    C. Regeneration
    D. Infection
    E. Neoplastic

Ans. The key is D. Infection. [Infective endocarditis (IE) is defined as an infection of the endocardial surface of the heart which may include one or more heart valves, the mural endocardium, or a septal defect. Its intracardiac effects include severe valvular insufficiency, which may lead to intractable congestive heart failure and myocardial abscesses. If left untreated, IE is almost inevitably fatal.Dental extraction is a risk factor for infective endocarditis].

43. A 46-year-old African-Caribbean man is found to have BP 160/90mmHg on 3 separate occasions. What is the best initial treatment?
    A. ACEi
    B. Beta-blockers
    C. ARBs
    D. None
    E. CCB

Ans. The key is E. CCB. [If age less than 55 years In general ACEI or Beta blockers are preferred. But in case of Afro-Caribbean origin CCB is chosen even in younger age as it gives better results in this ethnic group].

44. A 45-year-old man had recently started taking anti-hypertensive therapy. 6 months later his RBS is 14mmol/l. Which single drug is most likely to have caused this?

A. Amlodipine
B. Bendroflumethiazide
C. Doxazosin
D. Lorsartan
E. Ramipril

Ans. The key is B. Bendroflumethiazide. [High blood sugar is a well known side effect of thiazide (here bendroflumethiazide)].

45. A 43-year-old lady is admitted with pyrexia, arthropathy, breathlessness and syncope. She was recently diagnosed with pulmonary emboli. There is an early diastolic sound and a mid-diastolic rumble. Her JVP is elevated with prominent a-waves. What is the most likely cause?
    A. Mitral regurgitation
    B. Ventricular ectopics
    C. Pulmonary regurgitation
    D. Atrial myxoma
    E. Complete heart block

Ans. The key is D. Atrial myxoma. [Atrial myxomas are the most common primary heart tumors. Two-dimensional echocardiography is the diagnostic procedure of choice. Most atrial myxomas are benign and can be removed by surgical resection. Constitutional symptoms that include fever, weight loss, arthralgias, and Raynaud phenomenon. These symptoms may be related to overproduction of interleukin-6. Left heart failure may cause dyspnea on exertion caused by obstruction at the mitral valve orifice. Valve damage may result in mitral regurgitation. Jugular venous pressure may be elevated, and a prominent A wave may be present. An early diastolic sound, called a tumor plop, is heard. A diastolic atrial rumble may be heard if the tumor is obstructing the mitral or tricuspid valve. Systemic or pulmonary embolization may occur from left- or right-sided tumors. Embolization to the central nervous system may result in transient ischemic attack, stroke, or seizure].

46. A 60-year-old lady has severe chest pain. ECG shows changes of inferior wall MI. ECG also shows progressive prolongation of PR interval until a QRS complex is dropped. What is the most probable diagnosis?
    A. Atrial fibrillation
    B. VT
    C. SVT
    D. Mobitz type I 2nd degree heart block
    E. Mobitz type II 2nd degree heart block

Ans. The key is D. Mobitz type I 2nd degree heart block. [Inferior MI is frequently associated with conduction defect].

47. A 56-year-oldman was recently put on anti-hypertensive medications and recent biochemistry on 2 occasions showed: Na+ 132, K+ 7.6, Urea 11.3, Creatinine 112. Which of the following drugs is responsible for this result?

A. Amlodipine
B. Bendroflumethiazide
C. Doxazosin
D. Atenolol
E. Ramipril

Ans. The key is E. Ramipril. [ACEI and ARB are known to raise the serum potassium level].

48. A 63-year-old man continues to experience chest pain and has a temperature of 37.8˚C 2 days after an acute MI. His ECG shows widespread ST elevation with upward concavity. What is the single most likely explanation for the abnormal investigation?
    A. Acute pericarditis
    B. Cardiac tamponade
    C. Atrial thrombus
    D. Left ventricular aneurysm
    E. Dressler syndrome

Ans. The key is A. Acute pericarditis. [Chest pain, raised temperature and ECG findings of widespread ST elevation with upwards concavity is diagnostic of acute pericarditis particularly after MI].

49. A 55-year-old man returns for routine follow up 6weeks after an MI. He gets breathless when walking uphill. His ECG shows ST elevation in leads V1, V2, V3 and V4. What is the single most likely explanation for the abnormal investigation?

A. Heart block

B. Right ventricular strain

C. Atrial thrombus

D. Left ventricular aneurysm

E. Dressler's syndrome

Ans. The key is D. Left ventricular aneurism. [Left ventricular aneurysm is defined as a localized area of myocardium with abnormal outward bulging and deformation during systole and diastole. Clinically, ventricular aneurysms may be recognized late with features of heart failure and persistent ST elevation, recurrent ventricular arrhythmias, or recurrent embolization. Risk factors for these aneurysms after acute MI include the following:

- Female sex
- Total occlusion of the left anterior descending (LAD) coronary artery
- Single-vessel coronary artery disease (CAD)
- Absence of previous angina pectoris].

50. A 76-year-old man suddenly collapsed and died. At post mortem exam, a retroperitoneal hematoma due to ruptured aortic aneurysm was noted. What is the most likely underlying cause of the aortic aneurysm?
    A. Atheroma
    B. Cystic medial necrosis
    C. Dissecting aneurysm
    D. Polyarteritis nodosa
    E. Syphilis

Ans. The key is A. Atheroma. [Any condition that causes the walls of the arteries to weaken can lead to an aneurysm. Atherosclerosis is the leading cause. Others are high blood pressure, and smoking. Deep wounds, injuries, or infections can also cause blood vessels to bulge].

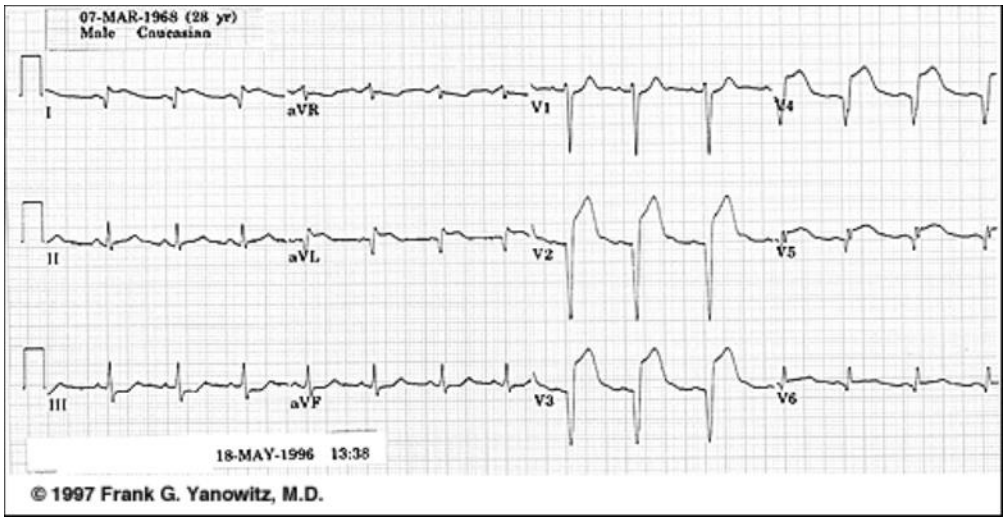
51. A 33-year-old male came to the hospital with complaint of occasional left sided chest pain that lasts <30minutes, following exercise, which relieves upon taking rest. What is the most probable diagnosis?
    a. Unstable angina
    b. Decubitus angina
    c. Stable angina
    d. Coronary spasm
    e. MI

Ans. The key is C. Stable angina. [Stable angina is chest pain or discomfort that most often occurs with activity or emotional stress and lasts for <30 minutes, relieved by rest or nitroglycerine. Symptoms of angina occur when blood supply to heart muscle is reduced. This happens when the coronary arteries are narrowed or blocked by atherosclerosis or by a blood clot].

52. An 82-year-old male suddenly becomes unconscious and fell down. He recovered completely within minutes. What is the best investigation you do to diagnose the case?
    a. ECG
    b. EEG
    c. Blood glucose level
    d. CT
    e. CXR

Ans. The key is A. ECG. [Here sudden unconsciousness without any provocation makes arrhythmia the most likely cause; hence we should do ECG].

53. A 56-year-old man presents to the emergency department with chest pain. The following ECG was taken. What is the most likely diagnosis?



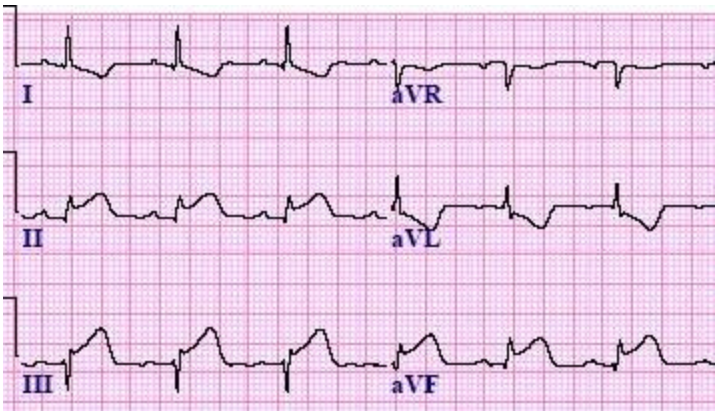
a. Anterior MI
b. Inferior MI
c. Lateral MI
d. Posterior MI
e. NSTEMI

Ans. The key is A. Anterior MI. [Here ST elevation in L1, aVL, v2,v3,v4 and v5. So the diagnosis is anterior MI (as L1 and aVL and v2-v5, anterolateral would be more appropriate description)].

54. A man comes to the emergency department with history of pulsatile swelling in the abdomen, he has history of hypertension and on examination: pulse 120bpm, BP 70/40mmHg. He is restless and in shock. What emergency management should be done on priority basis?
    a. Urgent abdominal CT
    b. Urgent abdominal US
    c. IV fluids 0.9% NS crystalloids to bring SBP to 90mmHg
    d. IV fluids 0.9% NS crystalloids to bring SBP to 120mmHg
    e. Dopamine inj

Ans. The key is C. IV fluids 0.9% NS crystalloids to bring SBP to 90mmHg [Probable ruptured aortic aneurism. Immediate IV normal saline to raise the BP to 90 mmHg to keep the vital organs perfused till definitive measures are taken].

55. A 72-year-old man presents to the ED (emergency department) with chest pain. The following ECG was taken. What is the most likely diagnosis?



a. Anterior MI

b. Inferior MI

c. Lateral MI

d. Posterior MI

e. NSTEMI

Ans. The key is B. Inferior MI. [There is ST elevation in leads II, III and aVF and pathological Q wave in lead III].

56. A patient underwent hip surgery. Later he presents with SOB (shortness of breath) and chest pain. What is the diagnosis?

    a. Pulmonary embolism

    b. MI

    c. Tension pneumothorax

    d. Fat embolism

    e. None

Ans. The key is A. Pulmonary embolism. [History of surgery (particularly when patients are immobile like hip surgery) followed by chest pain and breathlessness strongly suggests diagnosis of pulmonary embolism].

57. A 25-year-old man presents with history of breathlessness. A transthoracic echo reveals a patent foramen ovale. What diagnostic investigation would you do for a patent foramen ovale?
    A. Transesophageal echo
    B. Bubble echo

C. Transthoracic echo
D. ECG

Ans. The key is B. Bubble echo. [This is a test that can help identify a Patent Foramen Ovale. Pictures are taken of the heart in the same way a normal echocardiogram is performed. A small thin plastic cannula will be inserted into a vein in patient's arm. A small amount of sterile salty water (saline) will be mixed with a small amount of patient's own blood and then injected into the vein in patient's arm. The salty water contains tiny harmless bubbles which can be tracked on the echocardiogram scan revealing any potential abnormal flow through patent foramen ovale].

58. The body of a 65-year-old man who was treated for TB and bronchitis was seen at autopsy. His legs were swollen and his liver showed signs of a transudate fluid. What was the cause of the transudate?
    A. Liver cirrhosis
    B. Alcoholic liver disease
    C. Cardiac failure
    D. Budd-chiari syndrome
    E. TB

Ans. The key is C. Cardiac failure. [Chronic bronchitis is a well-known cause of congestive cardiac failure. Leg oedema and transudative fluid in liver is suggestive of congestive cardiac failure].

59. A woman presents with history of falls, becomes pale and clumsy. She is hypertensive and takes atenolol, bendroflumethiazide and amlodipine. What investigation is needed?

    A. 24h ECG

    B. 24h BP monitoring

    C. ECG

    D. Echo

    E. CT head

Ans. The key is B. 24h BP monitoring. [All these drugs (particularly prolonged use of thiazide and amlodipine) are well established cause of postural hypotension. So 24 hour BP monitoring should be done].

60. A 52-year-old man with history of anterior MI 3 weeks ago developed sudden onset of dyspnea. Examination: BP 100/60mmHg, pulse 100bpm, SaO2 88%, chest bilateral crackles. Which investigation would you do to find the underlying cause?

    A. CXR

    B. Echo

C. D-dimer

D. Radionucleotide lung scan

E. Troponin

Ans. The key is B. Echo. [Sudden papillary muscle rupture or VSD may be the likely cause (ventricular aneurism may take a more slower course) so echo is more logical approach].

61. A 74-year-old lady called an ambulance for an acute chest pain. She has a history of diabetes mellitus and hypertension, and is a heavy smoker. Paramedics mentioned that she was overweight and recently immobile because of a hip pain. She collapsed and died in the ambulance. What is the most likely cause of death?
    A. Pulmonary embolism
    B. MI
    C. Stroke
    D. Cardiac arrhythmia
    E. Cardiac failure

Ans. The key is B. MI.

62. A 78-year-old gentleman suddenly collapsed. His heart rate 120bpm, BP 70/40mmHg. Examination: pulsatile mass in abdomen. What is the most appropriate diagnosis?
    A. Aortic aneurysm
    B. Mesenteric cyst
    C. Umbilical hernia

Ans. The key is A. Aortic aneurism. [There is features of shock with pulse 120bpm and BP 70/40mmHg and sudden collapse of the patient with pulsatile mass in abdomen makes the likely diagnosis of ruptured aortic aneurism].

63. A 48-year-old man has continuous anterior chest pain which is worse on inspiration and has temperature of 37.5C since 4 weeks after a MI. His ESR is 45mm/h. What is the single most likely explanation for theabnormal investigation?
    A. Acute pericarditis
    B. Cardiac tamponade
    C. Atrial thrombus
    D. Left ventricular aneurysm
    E. Dressler syndrome

Ans. The key is E. Dressler syndrome. [Dressler's syndrome is a form of pericarditis, or inflammation of the pericardium.Dressler's syndrome can occur after a heart attack (myocardial infarction), heart surgery, heart procedure, or chest trauma due to an accident or injury. It is also known as post-myocardial infarction syndrome, post-cardiac injury syndrome, or post-pericardiotomy syndrome.Dressler's syndrome usually occurs within two to six weeks after heart surgery or a heart

attack, but it can take up to several months for symptoms to develop. It is characterised by pleuritic chest pain which is worse on inspiration, low-grade fever and pericarditis].

64. A patient diagnosed with DVT is taking warfarin. What is his cut off INR limit?
    A. <1
    B. 1-2
    C. 2-3
    D. 3-4

Ans. The key is C. 2-3. [This range is appropriate for the prophylaxis or treatment of venous thromboembolism and reduction of the risk of systemic embolism for people with atrial fibrillation and valvular heart disease].

65. A 70-year-old woman with longstanding anxiety is seen in the OPD. She complains of her heart skipping a beat quite often. This particularly occurs when she is trying to get to sleep. The palpitations are never sustained. What is the most likely rhythm disturbance?
    A. SVT
    B. VF
    C. VT
    D. V-ectopics (ventricular-ectopics)
    E. A-fib

Ans. The key is D. Ventricular-ectopics. [An ectopic rhythm is an irregular heart rhythm due to a premature heartbeat. Ventricular ectopic rhythm is also known as premature ventricular contraction, and ventricular extrasystole. When patients heart experiences an early beat, a brief pause usually follows. Ventricular-ectopics If occurs in a normal heart though symptomatic it is benign in nature but if it is secondary to heart disease like MI it may precipitate to more life threatening arrhythmia like ventricular fibrillation].

66. A 29-year-old man was involved in an RTA (road traffic accident). He presents with distended neck veins, clear breath sounds and a trachea which is in the midline. His RR (respiratory rate) 34bpm, BP60/0mmHg. What is the most likely diagnosis?
    A. Simple pneumothorax
    B. Tension pneumothorax
    C. Cardiac tamponade
    D. Pericarditis

Ans. The key is C. Cardiac tamponade. [Cardiac tamponade is a clinical syndrome caused by the accumulation of fluid in the pericardial space, resulting in reduced ventricular filling and subsequent hemodynamic compromise. The condition is a medical emergency, the complications of which include pulmonary edema, shock, and death. Distended neck vein, clear breath sound, no tracheal shift and BP of 60/0 points towards cardiac tamponade].

67. A 50-year-old man presented with increased breathlessness at rest. He is currently on furosemide, digoxin and isosorbide mononitrate. What drug is going to help him?
    A. Ramipril
    B. Bendroflumethiazide
    C. Atenolol
    D. Amlodipine
    E. Diltiazem

Ans. The key is B. Bendroflumethiazide. [This is a case of diuretic resistance. Heart failure represents the most common clinical situation in which diuretic resistance is observed. In mild CHF, diuretic resistance is not commonly encountered, as long as renal function is preserved. However, in moderate and severe CHF patients, diuretic resistance occurs more frequently and often becomes a clinical problem. In diuretic resistance another diuretic is added to get optimal or desirable result. As patient is still in heart failure and pulmonary edema with the usage of loop diuretic (frusemide), a thiazide diuretic could be added with frusemide when response is inadequate. This will reduce the volume overload and improve breathing].

68. A 52-year-old man underwent a hemicolectomy. After a few days he complains of left ventricular pain and fever. ECHO has been done and shows a systolic murmur. What is the next appropriate investigation?
    A. CT
    B. US
    C. CXR
    D. Blood culture
    E. LFT

Ans. The key is D. Blood culture. [History of surgery, left ventricular pain, fever and murmur suggest a diagnosis of infective endocarditis. Therefore the next appropriate investigation is blood culture].

69. A 63-year-old man has been brought to the hospital after collapsing during a wedding. His ECG is below.What is the most likely diagnosis?

A. VT
B. A-fib
C. VF
D. A-flutter
E. SVT

Ans. The key is C. VF. [QRS complex is chaotic, wide, bizarre and irregular which is characteristic of ventricular fivrillation].

70. A 56-year-old man who is hypertensive recently underwent a change in medicines. 2days later hedeveloped wheezing. Which drug can cause this?
    A. Atenolol
    B. Ramipril
    C. Bendroflumethiazide
    D. Verapamil
    E. Furosemide

Ans. The key is A. Atenolol. [Beta blockers can precipitate asthma attacks even though cardioselective].

71. A hypertensive patient on bendroflumethiazide 2.5mg/d has come for his routine checkup. Examination:BP 145/85mmHg. Lab investigation: K+ 5.9, Na+ 137. What is the most appropriate management for this patient?
    A. Stop meds
    B. Continue same dose

C. Increase the dose
D. Decrease the dose
E. Repeat the blood test

Ans. The key is E. Repeat the blood test. [Bendroflumethiazide causes hyponatremia and hypokalemia. But the findings are opposite which is probably error of test. Hence blood test should be repeated to confirm the level of potassium and sodium].

72. A 57-year-old man having hypertension is on oral anti-hypertensive. However, he is finding it difficult to mobilize as he feels dizzy whenever he tries to get up. What is the most appropriate investigation for him?
    A. Ambulatory BP
    B. ECG
    C. MRI
    D. CXR
    E. CT

Ans. The key is A. Ambulatory BP. [Ambulatory BP to document low BP as cause of presenting symptom. The case seems to be of postural hypotension and low BP as a result of given anti-hypertensive].

73. After surgery a patient's left leg has become swollen and tender. The diameter of the calf has increased and passive movements cause pain. What is the most probable diagnosis?
    A. DVT
    B. Lymphedema
    C. Peripheral vascular disease
    D. Hematoma
    E. Superficial thrombophlebitis

Ans. The key is A. DVT. [Swelling, tenderness and enlarged calf diameter are features of DVT supported by positive Homan's test (pain on passive movement)].

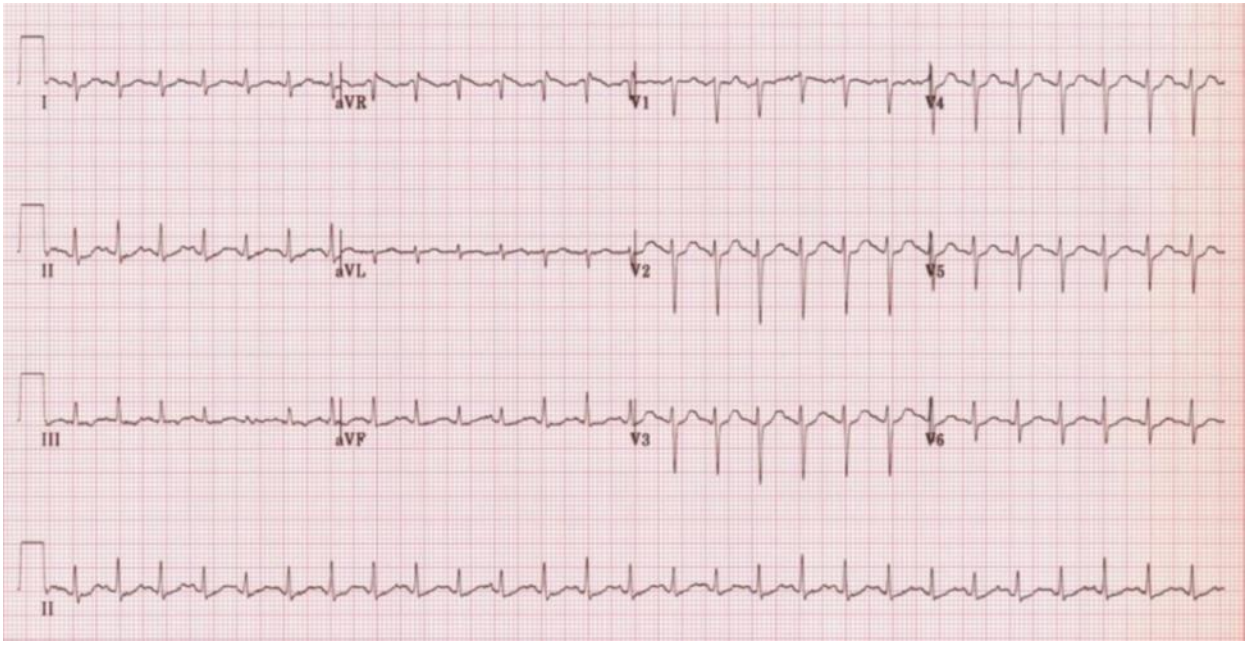
74. A 50-year-old female had swelling in her ankles. She is a known alcoholic. Now she presented with breathlessness and palpitations. What is the most likely cause of her condition?
    A. VT
    B. SVT
    C. A-flutter
    D. A-fib
    E. V-ectopics

Ans. The key is D. Atrial fibrillation. [Ankle swelling suggests alcoholic cardiomyopathy and alcoholism is also a well known cause of atrial fibrillation].

75. A 42-year-old lady had corrective surgery for cyanotic congenital heart disease at the age of 3y, after a palliative operation during infancy. There is a parasternal impulse and an early diastolic murmur. What is the most probable diagnosis?
    A. Aortic regurgitation
    B. Ischemic mitral regurgitation
    C. Aortic stenosis
    D. Pulmonary stenosis
    E. Pulmonary regurgitation

Ans. The key is E. Pulmonary regurgitation. [In the present day, some patients with tetralogy of Fallot have survived for longer than 15-20 years after their first operation. The major problem encountered by these individuals is the development of pulmonary valvular regurgitation. It appears that a number of these individuals require pulmonary valve replacement].

76. What is the most likely diagnosis based on this ECG?



    A. Normal
    B. VT
    C. Sinus Tachycardia
    D. WPW syndrome
    E. A-fib

Ans. The key is C. Sinus Tachycardia.

77. Patient with pain and swelling in left leg and thigh up to the level of inguinal ligament. Where is the level of occlusion?
    A. Femoro-popliteal artery
    B. Left common iliac artery
    C. Aortoiliac artery
    D. Femoral artery
    E. Profound femoral artery

Ans. The key is B. Left common iliac artery. [General rule is occlusion occurs in proximal bifarcation. So the correct key is B. Left common iliac artery. That is occlusion in the bifarcation of left common iliac artery (as femoral artery bifarcates more distally to superficial and deep branches)].

78. A 65-year-old man presents with dyspnea 3 days after an MI. On auscultation he has a pansystolic murmur at the apex radiating to the axilla. What is the most likely diagnosis?
    A. Ruptured papillary muscle
    B. Ventricular aneurysm
    C. Pericarditis
    D. Pericardial effusion
    E. VSD

Ans. The key is A. Ruptured papillary muscle. [Pansystolic murmur in apex radiating to axilla may be due to mitral regurgitation secondary to papillary muscle rupture].

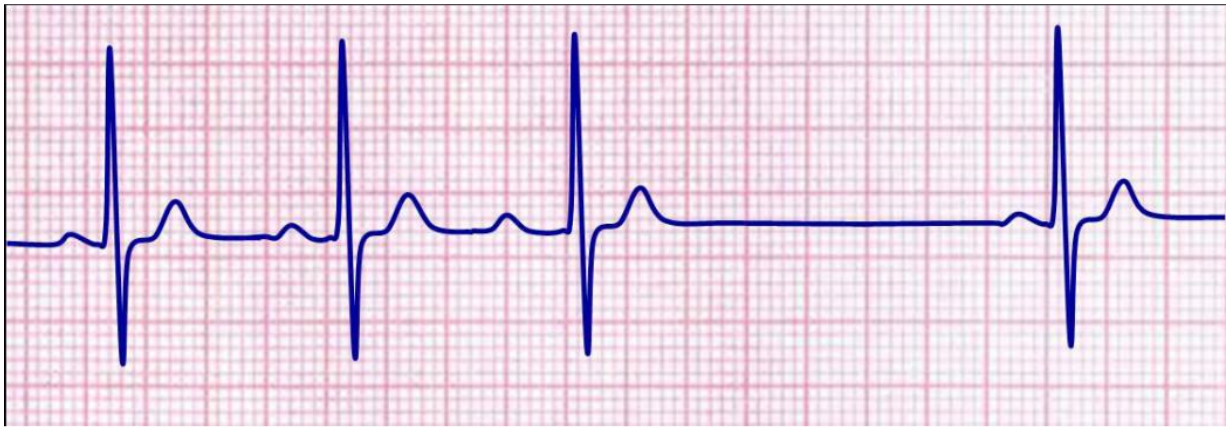
79. A 63-year-old man presented with sudden onset of severe dyspnea, orthopnea, raised JVP and bilateral basal crackles 3 days after an episode of MI. A diagnosis of acute congestive cardiac failure was made and IV furosemide was started for this patient. What electrolyte abnormality is expected?
    A. High Na+, Low K+
    B. Low Na+, High K+
    C. Low Na+, Low K+
    D. High Na+, High K+
    E. Low Na+, Normal K+

Ans. The key is C. Low Na+, Low K+. [Frusemide causes hyponatremia, hypochloremic alkalosis, hypokalemia, hypomagnesemia and hypocalcemia].

80. A 47-year-old hypertensive white british man on thiazide diuretics needs a 2nd drug to control his BP. Which one of the following is the best choice for him?
    A. Amlodipine (CCB)
    B. Enapril (ACEi)
    C. Propranolol (Beta blocker)
    D. Increase dose of diuretic
    E. Prazocin (Alpha blocker)

Ans. The key is B. Enalapril. [In patients >55 yrs CCB. If CCB not suitable (oedema, heart failure) thiazide is preferred. In patients <55yrs ACEI or ARB. Now if patient is on CCB or Thiazide and 2nd drug is to be added it should be one of ACEI or ARB and not one from CCB or Thiazide].

81. A 62-year-old man has slow palpitations and the following ECG. What is the most likely diagnosis?



A. Sinus bradycardia

B. 1st degree heart block

C. Mobitz type 1 block

D. Mobitz type 2 block

E. Complete heart block

Ans. The key is C. Mobitz type 1 block. [Gradual prolongation of PR interval followed by a drop beat].

82. A 70-year-old woman is admitted with diarrhea, vomiting and dehydration. Examimation: yellow visual halos in her eyes, ECG bradycardia. She has a history of chronic atrial fibrillation. Which drug causes the above mentioned side effects?
    A. Nifedipine
    B. Ramipril
    C. Atenolol
    D. Lithium
    E. Digoxin

Ans. The key is E. Digoxin. [Digoxin toxicity causes diarrhea, vomiting, dehydration, xanthopsia (yellow halos around light), bradicardia. History of atrial fibrillation is also a clue of digoxin use].

83. A white English man with a past history of MI is a known hypertensive and diabetic. He is currently on aspirin, statin and metformin. What would you add to the treatment?
    A. ACEi

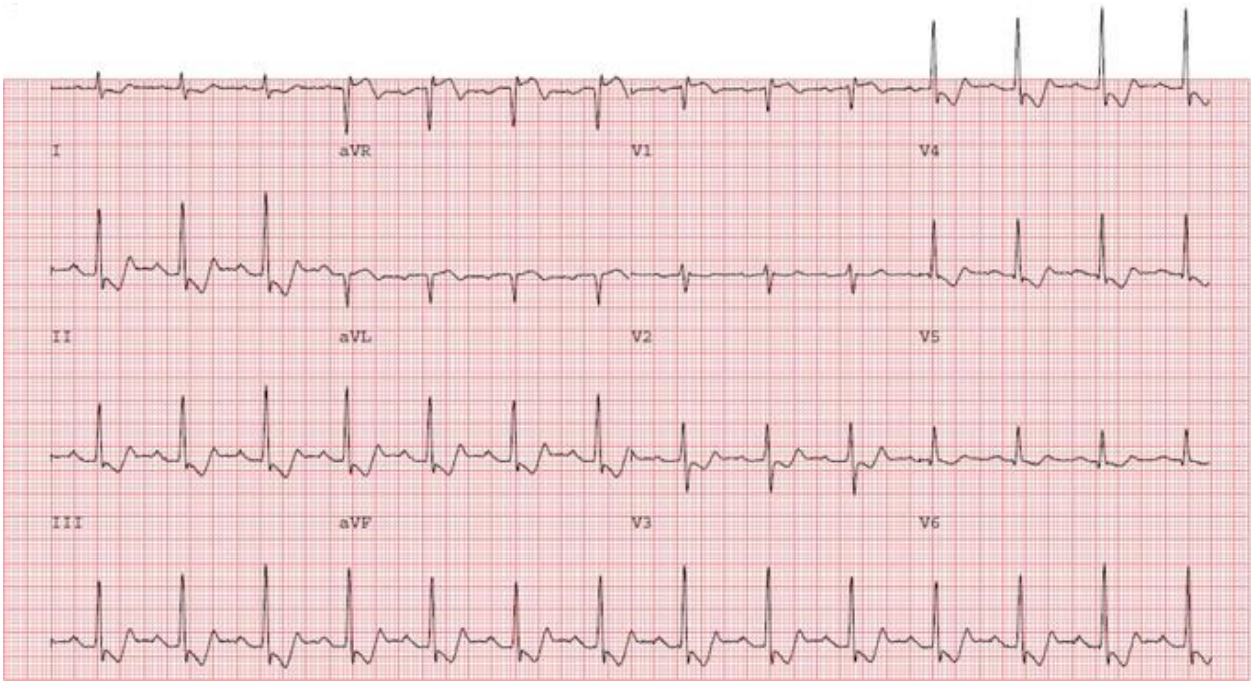
B. Diuretic
C. Insulin
D. Beta blocker
E. CCB

Ans. The key is A. ACEI.[The patient is diabetic and has pass history of MI. In both of these situations ACEI is the antihypertensive of choice].

84. A 51-year-old man had an MI a few days ago. He developed breathlessness. Echo was done and showed a pansystolic murmur. What can be the cause of this symptom?
    A. Ruptured papillary muscle
    B. Acute pericarditis
    C. Dresslers syndrome
    D. Malignant VT
    E. Ventricular aneurysm

Ans. The key is A. Ruptured papillary muscle. [Papillary muscle rupture causes mitral regurgitation causing pancystolic murmur leading to features of heart failure like breathlessness].

85. A 72-year-old man presents to the emergency department with chest pain. The following ECG was taken. What is the most likely diagnosis?



A. Anterior MI
B. Inferior MI

C. Lateral MI
D. Posterior MI
E. NSTEMI

Ans. The key is E. NSTEMI.

86. A 65-year-old lady who is on thiazide suffers from falls in the morning. What is the cause for her symptoms?
    A. Orthostatic hypotension
    B. TIA
    C. Epilepsy

Ans. The key is A. Orthostatic hypotensin. [Thiazide diuretic is associated with orthostatic hypotension due to fluid depletion].

87. A 28-year-old man presents with a 2 hours history of rapid palpitations. He feels a little light headed but is otherwise well. Examination: pulse 170bpm and regular, BP 100/68mmHg. He has had 2 similarepisodes in the past. What is the most likely rhythm disturbance?
    A. SVT
    B. VF
    C. VT
    D. V-ectopics
    E. A-fib

Ans. The key is A. SVT. [Palpitation, light headedness with a tachycardia of 170bpm that is regular are most likely a SVT. Ventricular tachycardia is usually seen in patients with cardiac disease like ischemic heart disease and may frequently lead to hemodynamic instability].

88. A 45-year-old man is admitted to emergency department with excruciating pain in the right leg. Examination: limb is pale and dorsalis pedis and posterior tibial pulses are absent. Pulse 88bpm, irregular and he has a pansystolic murmur at apex. What is the most probable diagnosis?
    A. Thromboangitis Obliterans
    B. Sciatica
    C. DVT
    D. Atherosclerosis
    E. Embolus

Ans. The key is E. Embolus. [Pansystolic murmur at apex indicates mitral regurgitation and irregular pulse indicates AF which can lead to thrombus formation what probably is responsible for this embolus in leg].

89. A 58-year-old man suddenly becomes shocked several days after suffering an acute anterior MI. His CXR shows a large globular-shaped heart and clear lung fields. What is the single most likelyexplanation for the abnormal investigation?

A. Acute pericarditis
B. Cardiac tamponade
C. Atrial thrombus
D. Left ventricular aneurysm
E. Dressler syndrome

Ans. The key is B. Cardiac tamponade. [Shock in a post MI patient with globular heart on X-ray and clear lung field indicate Cardiac tamponade].

90. A branch of the dominant coronary artery that supplies the inferior portion of the septum. What is the single most appropriate option?
    A. Septal branches
    B. Obtuse marginal branches
    C. Circumflex artery
    D. Left main stem, posterior descending artery
    E. Diagonal branch

Ans. The key is D. Left main stem, posterior descending artery. [Here no option is satisfactorily correct! By dominant coronary artery we mean that coronary artery which gives of the branch of posterior descending artery. Mostly it is right coronary artery and if there is left coronary dominance, posterior descending artery is the branch of circumflex artery and not direct branch of left main artery. However the only option that goes nearer is D. Left main stem, post. descending artery].

91. The artery that supplies the anterior right ventricular wall. What is the single most appropriate option?
    A. Acute marginal branch
    B. Left ant descending artery
    C. Coronary sinus
    D. Circumflex artery
    E. Right coronary artery

Ans. The key is A. Acute marginal branch.

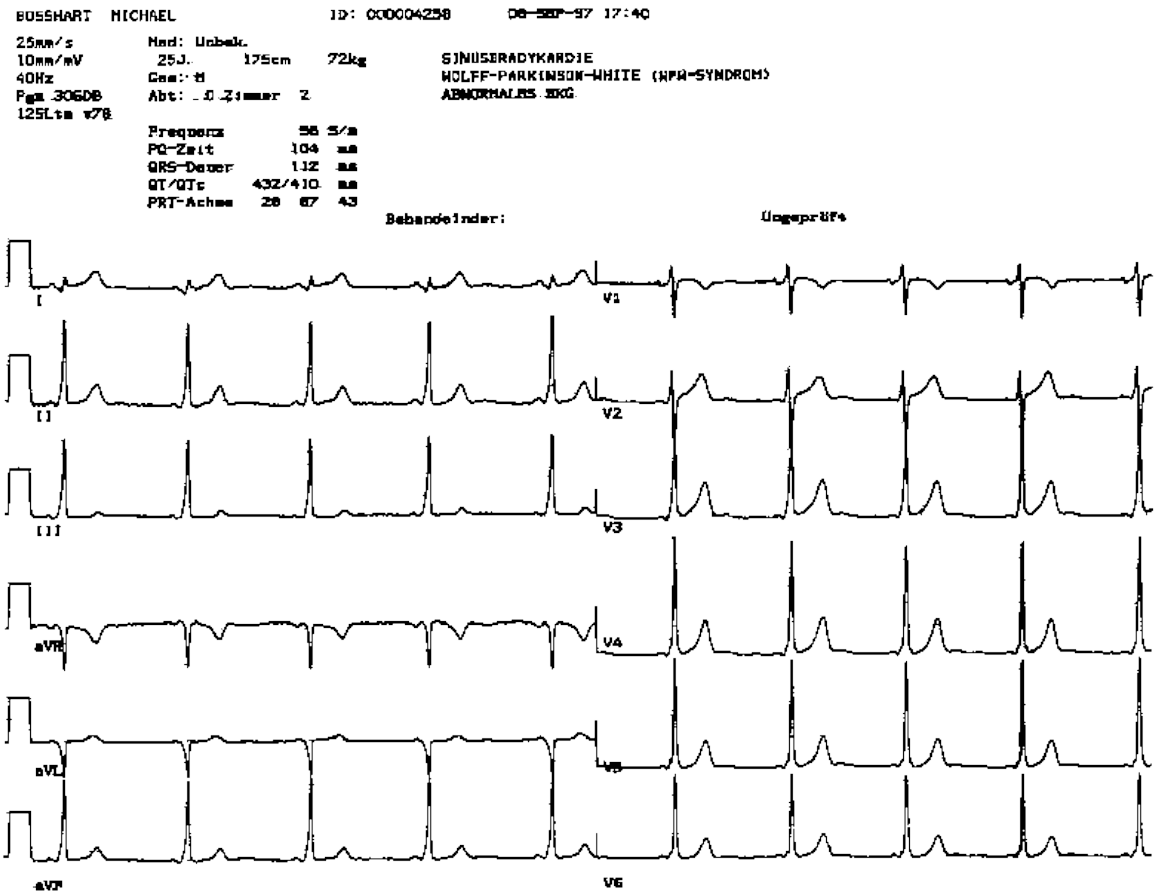
92. After an MI, a man presents with pansystolic murmur which is radiating to the axilla. What is the diagnosis?
    A. Tricuspid regurgitation
    B. Mitral regurgitation
    C. Aortic stenosis
    D. Mitral stenosis

Ans. The key is B. Mitral regurgitation. [MI can lead to papillary muscle rupture causing mitral regurgitation].

93. A 59-year-old patient has been diagnosed with hypertension. His BP has been >160/90mmHg on 3 separate occasions. His biochemical profile is as follows: Na+145mmol/l, K+6.2mmol/l, creatinine112umol/l, urea5.7mmol/l. What is the most appropriate anti-hypertensive drug for him?
    A. Amlodipine
    B. Bendroflumethiazide
    C. Ramipril
    D. Lorsartan
    E. Propranolol

Ans. The key is B. Bendroflumethiazide. [Thiazide reduces Na+ and K+ level. So in this picture of upper normal Na+ with hyperkalemia thiazide seems to be appropriate].

94. A 46-year-old man with tachycardia has the following ECG. What is the most likely diagnosis?



    A. SVT
    B. VT
    C. Mobitz I heart block
    D. Atrial fibrillation
    E. WPW syndrome

Ans. The key is E. WPW syndrome. [Short PR interval and slurred delta wave indicates WPW syndrome].

95. A 55-year-old patient presents with collapse and complains of abdominal pain that radiates to the back. An expansile abdominal mass is felt on examination and the patient is in shock. What is the single most likely diagnosis?
    A. Ruptured aortic aneurysm
    B. Renal colic
    C. Trauma
    D. Endocarditis
    E. Atheroma

Ans. The key is A. Ruptured aortic aneurysm.

96. A new born baby is brought with pansystolic murmur at sternal border but the baby is not cyanosed. What is the diagnosis?
    A. VSD
    B. ASD
    C. TOF
    D. PDA

Ans. The key is A. ventricular septal defect. [Pancystolic murmur in sternal border without cyanosis is indicative of VSD].

97. A 55-year-old man is having slow growing ascites. When we tap the peritoneal fluid the protein is <25 and it is clear and yellow. What could be the origin for ascites?
    A. Budd-Chiari
    B. Gastrinoma
    C. Hepatoma
    D. TB
    E. Pancreatitis

Ans. The key is A. Budd-Chiari syndrome. [In gastrinoma there is no ascites! In hepatoma there will be exudative ascites as in TB and pancreatitis. Budd-Chiary syndrome causes transudative ascites and the likely option here].

98. A 50-year-old man came to the hospital a few months after he had a MI. Examination: everything normal, S1 and S2 were heard on auscultation, but there is a new pan-sytolic murmur. What is the most appropriate investigation of choice?
    A. ECG
    B. 24h ECG
    C. Echo
    D. CXR
    E. CT

Ans. The key is C. Echo. [To rule out any valvular lesion (following papillary muscle rupture) or septal lesion].

99. A man after MI presented with sudden breathlessness and dyspnea. Examination: scattered pansystolic murmur all over the precordium. What is the next investigation that will lead to diagnosis?
    A. ECG
    B. Echo
    C. CT
    D. Blood culture
    E. CXR

Ans. The key is B. echo. [Sudden breathlessness and dyspnea suggest mitral regurgitation secondary to papillary muscle rupture. D/D is VSD. However in either case required investigation is echo].

100. A man is brought to the emergency department after he was stabbed in the chest. Chest is clear bilaterally with muffled heart sounds. B 60/0mmHg, pulse 120bpm, JVP is raised. What is the most probable diagnosis?
    A. Pulmonary embolism
    B. Cardiac tamponade
    C. Pericardial effusion
    D. Hemothorax
    E. Pneumothorax

Ans. The key is B. Cardiac tamponade. [Lungs clear bilaterally excludes effusion and pneumothorax. Muffled heart sound and low bp with raised jvp points towards the diagnosis of cardiac tamponade (These three signs together is known as Beck's triad)].

101. A 68-year-old man on treatment for an irregular heart beat comes to the emergencydepatment. He has palpitations for the last 3 hours. Examination: pulse regular, 154bpm. Carotid sinus massage settled his pulse down to 80bpm. What is the most likely rhythm disturbance?
    A. SVT
    B. V-fib
    C. VT
    D. V-ectopics
    E. A-fib

Ans. The key is A. SVT. [Regular tachycardia responding to vagal maneuver is SVT].

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102. A 76-year-old man is in the CCU 2 days after an acute MI. He tells you that he had an episode of rapid pounding in the chest lasting for about 2minutes. He remains conscious throughout. What is the most likely rhythm?
A. SVT
B. VF
C. VT
D. V-ectopics
E. A-fib

Ans. The key is D. V-ectopics. [Why not VT? Non sustained VT lasts less than 30 seconds. So it is not non sustained VT. Again sustained VT causes syncope, but patient was conscious. So it is not sustained VT as well. There may be runs of V-ectopics. So the answer is D. V-ectopics].

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103. A 70-year-old lady on Raloxifene for osteoporosis has recently to the UK from Australia. She now presents with severe chest pain, SOB and suddenly collapsed in the emergency department. What is the single most appropriate diagnosis?
A. MI
B. Aortic dissection
C. Pulmonary embolism
D. Costochondritis
E. Pneumothorax

Ans. The key is C. Pulmonary embolism. [Prolonged air travel is a risk factor for pulmonary embolism].

104. A 54-year-old man comes with sudden onset of palpitations and breathlessness. His heart rate is 164bpm. What is the single most appropriate treatment in the acute phase?
A. Adenosine
B. Metaprolol
C. Verapamil
D. Amiodarone

Ans. The key is B. Metoprolol. [The arrhythmia where we use acute and chronic phase is AF. This is acute phase of atrial fibrillation for which we use beta-blocker. So the answer should be B. Metoprolol here].

105. A 72-year-old woman who is taking loop diuretics for left ventricular failure. She now is suffering from palpitations and muscle weakness. What is the electrolyte imbalance found?
A. Na+=130mmol/L, K+=2.5mmol/L
B. Na+=130mmol/L, K+=5.5mmol/L
C. Na+=140mmol/L, K+=4.5mmol/L
D. Na+=150mmol/L, K+=3.5mmol/L
E. None

Ans. The key is A. Na+=130mmol/L, K+=2.5mmol/L. [Loop diuretics causes hyponatremia and hypokalemia].

106. A patient came to the hospital with a complaint of severe chest pain lasting for >1 hour. Following ECG test, patient revealed to have ST depression. He was already on aspirin. What is the most specific treatment for this patient?
A. GTN
B. Simvastatin
C. Clopidogrel
D. BB
E. LMWH (low molecular weight heparin)

Ans. The key is E. LMWH.

107. The ECG of a 65-year-old shows absent P waves, narrow QRS complex, ventricular rate of 120bpm and irregular R-R interval. What is the most probable diagnosis?
A. A-fib
B. A-flutter
C. SVT
D. Mobitz type 1 2nd degree heart block
E. Sinus tachycardia

Ans. The key ia A. Atrial fibrillation. [In Atrial fibrillation fibrillatory f waves replaces p waves and R – R intervals are irregular].

108. The ECG of an 80-year-old patient of IHD (ischemic heart disease) shows sawtooth like waves, QRS complex of 80ms, ventricular rate of 150bpm and regular R-R interval. What is the most probable diagnosis?
A. A-fib
B. A-flutter
C. SVT
D. Mobitz type 1 2nd degree heart block
E. Sinus tachycardia

Ans. The key is B. Atrial flutter. [Sawtoothlike waves and regular R-R interval are diagnostic of atrial flutter].

109. A 70-year-old man presents with a punched out ulcer between his toes. He is a heavy drinker and smoker. Examination: ulcer is yellow and the foot turns red when dangling off the bed. What is the single most likely diagnosis?
A. Arterial ischemia ulcer
B. Malignancy
C. Neuropathic ulcer
D. Pressure ulcer

E. Venous stasis ulcer

Ans. The key is A. Arterial ischemic ulcer.

110. A 65-year-old woman complains of a painful discharging ulcer above her ankle on the inner side of her left lower leg. Examination: the base of the ulcer is red and covered by a yellow fibrous tissue. The border is irregular. The skin is tight. What is the single most likely diagnosis?
A. Arterial ischemia ulcer
B. Malignancy
C. Neuropathic ulcer
D. Pressure ulcer
E. Venous stasis ulcer

Ans. The key is E. Venous stasis ulcer. [Some people with venous insufficiency develop stasis dermatitis. Blood pools in the veins of the lower leg. Fluid and blood cells leak out of the veins into the skin. It is usually seen above ankle and inner side of leg].

111. A 55-year-old woman suffered from an acute MI 5 days ago. While she was in the hospital the patient developed features of pulmonary edema and heart failure. What is the most probable cause of her present condition?
A. VSD
B. Ruptured papillary muscle
C. Pericarditis
D. A-fib
E. Re-infarction

Ans. The key is B. Ruptured papillary muscle. [Post MI rupture of papillary muscl is responsible for valve failure (mitral regurgitation) causing pulmonary oedema and heart failure].

112. A 70-year-old man presents with acutely painful, pale paralysed and pulseless left leg. He is noted to have atrial fibrillation. What is the most probable diagnosis?
A. Intermittent claudication
B. Cardiovascular syphilis
C. Buerger's disease
D. Chronic limb ischemia
E. Acute limb ischemia

Ans. The key is E. Acute limb ischemia. [AF may be the cause of thrombus leading to embolic acute limb ischemia].

113. A 60-year-old man has had increasing pain in both buttocks, thighs and calves on walking for three months. He has also recently developed impotence. Femoral and distal pulses are absent in both limbs. What is the SINGLE most likely site of arterial obstruction?
A. Aorto iliac

B. External iliac
C. Femoropopliteal
D. Internal iliac
E. Tibial

Ans. The key is A. Aorto iliac. [saddle embolus; surgical intervention].

Patient is suffering from leriche's syndrome.

Classic triad of:

- Pain and claudication of buttock and thighs (pale cold leg)
- Erectile dysfunction from aorto iliac occlusive disease
- Absent femoral and distal pulse.

114. A patient presents with irregularly irregular pulse of 162bpm. What drug is most useful initially?
A. Amiodarone
B. Digoxin
C. Bisoprolol
D. Warfarin
E. Heparin

Ans. The key is C. Bisoprolol [Most likely its acute AF and 1st line is verapamil/bisoprolol, 2nd line digoxin/amiodarone].

115. Which finding, on clinical examination of the pulse, suggests a diagnosis of hypertrophic obstructive cardiomyopathy (HOCM)?
A. Irregularly irregular pulse suggesting A-fib
B. Pulsusalternans
C. Pulsusbigeminus
D. Pulsusbisferiens
E. Pulsusparadoxus

Ans. The key is D. Pulsusbisferiens. [Pulsusbisferiens, is a sign where, on palpation of the pulse, a double peak per cardiac cycle can be appreciated. Bisferious means striking twice. Classically, it is detected when aortic insufficiency exists in association with aortic stenosis, but may also be found in hypertrophic obstructive cardiomyopathy].

116. For the following type of surgery what is the most likely agent that may cause post-operative infection -- aorto-iliofemoral reconstruction with a Dacron vascular prosthesis?
A. Proteus
B. E.coli
C. Bacteroides fragilis

D. Staphylococcus aureus
E. Staphylococcus epidermis
F. C.perfringens
G. Pseudomonas aeruginosa
H. Streptococcus fecalis
I. Streptococcus pneumonia
J. Brucella melitensis

Ans. The key is E. Staphylococcus epidermidis. [Staphylococcus epidermidis is most common cause of infections in prosthesis].

117. Which one of the following electrocardiographic changes is found in hypercalcaemia?
A. Increased QRS interval
B. Prolonged Q-T interval
C. Short P-R interval
D. Short Q-T interval

Ans. The key is D. Short Q-T interval. [Short Q-T interval secondary to a shortened ST segment].

118. A 58 year old man suddenly becomes shocked several days after suffering an acute myocardial infarction. His chest X-ray shows a large globular shaped heart and clear lung fields. What is the single most likely diagnosis.
A. Acute pericarditis
B. Atrial thrombus
C. Cardiac tamponade
D. Heart block
E. Left ventricular aneurism

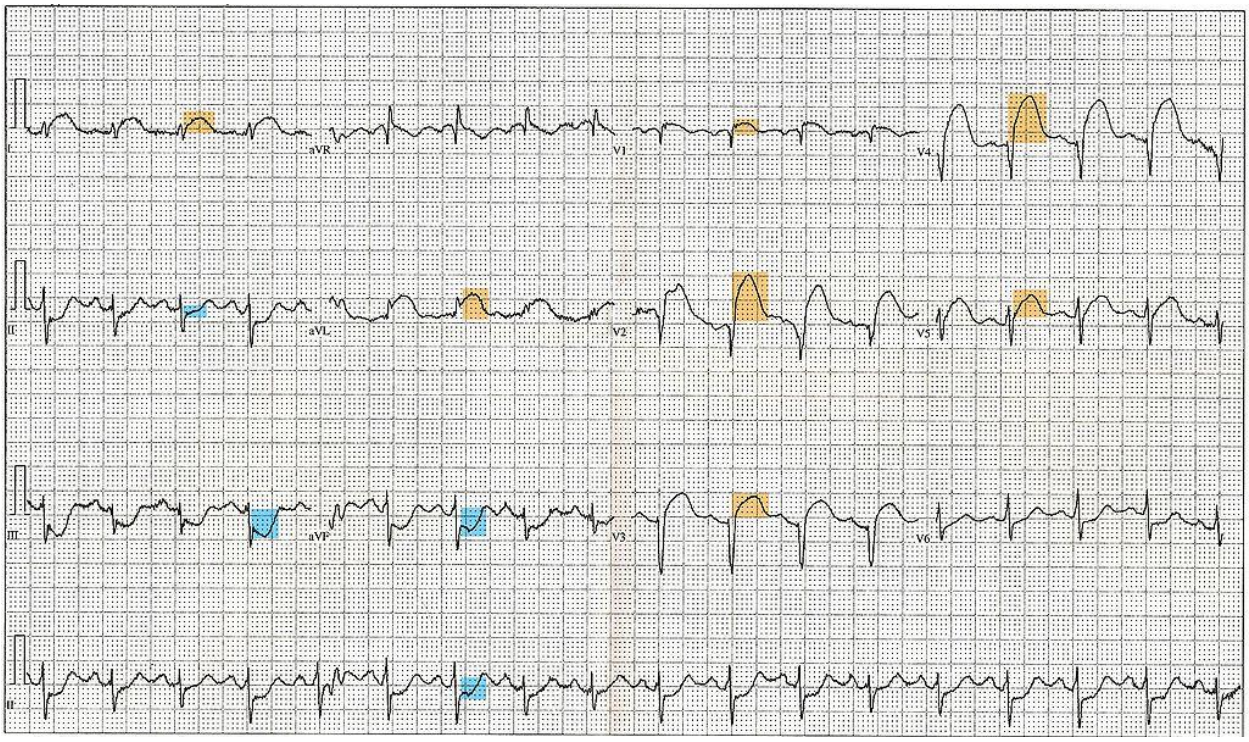
Ans. C. Cardiac tamponade. [Large globular heart indicates cardiac tamponade. Shock is due to compromised cardiac output due to tamponade].

119. A 47-year-old man with a history of ischaemic heart disease complains of chest pain with shortness of breath on exertion over the past few days. ECG is normal and echocardiography shows decreased ejection fraction and decreased septal wall thickening. What is the single most likely diagnosis?

A. Dilated cardiomyopathy
B. Constrictive pericarditis
C. Amyloidosis
D. Subacute endocarditis

Ans. The key is A. Dilated cardiomyopathy. [Diagnosis is ischemic dilated cardiomyopathy].

120. A 50-year-old man present with central crushing chest pain radiating to the left arm. ECG is shown below. What is the next step in management?



A. Low molecular weight heparin
B. Percutaneous coronary intervention
C. Aspirin
D. Clopidogrel
E. Warfarine

Ans. The key is D. Aspirin. [All patients with STEMI should receive an empiric loading dose of aspirin (150.5 to 325 mg) as early as possible and prior to reperfusion, regardless of the reperfusion method. A lifelong maintenance dose of (75 to 81 mg) daily should be prescribed to all patients after STEMI].

2. RESPIRATORY SYSTEM

1. A 74-year-old smoker presented to his GP with cough and shortness of breath. Exam revealed pigmentation of the oral mucosa and also over the palms and soles. Tests show that he is diabetic and hypokalemic. What is the most probable diagnosis?
   A. Pseudocushing syndrome
   B. Conns disease
   C. Ectopic ACTH
   D. Cushings disease
   E. Hypothyroidism

Ans. The key is C. Ectopic ACTH. [The patient probably developed small cell lung cancer which is working as a tumour producing ectopic ACTH. Hyperpigmentation is caused by high levels of circulating ACTH that bind to the melanocortin 1 receptor on the surface of dermal melanocytes. Ectopic ACTH induced raised cortisole is leading to diabetes and hypokalemia.A variant of Cushing's disease can be caused by ectopic ACTH production from a small-cell lung cancer].

2. A 26-year-old man presents to emergency department with increasing shortness of breath on left side and chest pain. He has been a heavy smoker for the past 4 years. He doesn't have any past medical history. What is the likely diagnosis?
   A. Pulmonary embolism
   B. MI
   C. Asthma
   D. Pleural effusion
   E. Pneumothorax

Ans. The key is E. Pneumothorax. [A pneumothorax occurs when air leaks into the space between parietal and visceral pleura. This air pushes on the outside of the lung and makes it collapse. It may be complete collapse or partial. A pneumothorax can be idiopathic or caused by a blunt or penetrating chest injury, certain medical procedures, or damage from underlying lung disease and rupture of subpleural blebs. The main symptoms of a pneumothorax are sudden chest pain and shortness of breath.Pneumothorax may be i. spontaneous pneumothorax ii. Iatrogenic pneumothorax and iii. tension pneumothorax. History and physical examination remain the keys to making the diagnosis of pneumothorax. Chest X-ray is most commonly used.

In given caseIncreased shortness of breath and chest pain with no past medical history favours the diagnosis of pneumothorax. Heavy smoking or tobacco is a risk factor for spontaneous pneumothorax].

3. A 35-year-old man presents with progressive breathlessness. He gave a history of polyarthralgia with painful lesions on the shin. CXR: bilateral hilar lymphadenopathy. What's the most likely diagnosis?
   A. Bronchial asthma
   B. Cystic fibrosis
   C. Sarcoidosis
   D. Bronchiectasis
   E. Pneumonia

Ans. The key is C. Sarcoidosis. [Sarcoidosis is a granulomatous inflammatory disease that affects multiple organs in the body, but mostly the lungs, skin and lymph glands. Given case is termed as Lofgren's syndrome. Lofgren's syndrome is an acute form of sarcoidosis characterized by erythema nodosum, bilateral hilar lymphadenopathy, and polyarthralgia or polyarthritis].

4. A 10-year-old girl presents with hoarseness of the voice. She is a known case of bronchial asthma and has been on oral steroids for a while. What is the most likely cause of hoarseness?

A. Laryngeal candidiasis
B. Infective tonsillitis
C. Laryngeal edema
D. Allergic drug reaction
E. Ludwigs angina

Ans. The key is A. Laryngeal candidiasis. [Here laryngeal candidiasis is due to steroid. Steroids predisposes to fungal infection].

5. A 20-year-old student attends the OPD with complaint of breathlessness on and off, cough and sputum. His sleep is disturbed and skin is very dry in flexural areas of the body. Examination: tachypnea, hyperresonant percussion and wheezing on auscultation. What is the most likely diagnosis?
   A. Extrinsic allergic alveolitis
   B. Asthma
   C. Wegener's granulomatosis
   D. COPD
   E. Cystic fibrosis

Ans. The key is B. Asthma. [Diagnostic criteria of asthma: i) Airway hyper-responsiveness to certain stimuli ii) Recurrent variable airflow limitation usually reversible iii) presents as wheezing, breathlessness, chest tightness and cough. Asthma is often associated with eczima which may be present as dryness and itching of flexures].

6. An old alcoholic presents with cough, fever, bilateral cavitating consolidation. What is the most probable cause?
   A. Gram +ve diplococcic
   B. Coagulase +ve cocci
   C. Gram –ve cocci
   D. AFB
   E. Coagulase –ve cocci

Ans. The key is B. Coagulase +ve cocci. [The picture is of pneumonia and bilateral cavitating consolidation favours staphylococcus as the causative agent].

7. A 20-year-old man has a head on collision in a car. On presentation he is breathless, has chest pain and fracture of 5-7th rib. CXR confirms this. What is the most appropriate initial action in this patient?
   A. Antibiotics
   B. Analgesia
   C. O2 by mask
   D. Physiotherapy
   E. Refer to surgeon

Ans. The key is C. O2 by mask.

8. A 50-year-old chronic smoker came to OPD with complaint of chronic productive cough, SOB (shortness of breath) and wheeze. Laboratory investigations: CBC=increase in PCV. CXR >6ribs seen above the diaphragm in midclavicular line. ABG=pO2 decreased. What is the most likely diagnosis?
   A. Interstitial lung disease
   B. Wegener's granulomatosis
   C. Ca bronchi
   D. COPD
   E. Amyloidosis

Ans. The key is D. COPD. [Points in favour of COPD: i) Age 50 yrs ii) Chronic smoker iii) Chronic productive cough, SOB and Wheeze iv) Raised PCV secondary to chronic hypoxaemia v) Low set diaphragm and widened horizontal ribs vi) Hypoxaemia on ABG].

9. A 32-year-old previously healthy woman has developed pain and swelling of both knees and ankles with nodular rash over her shins. As part of the investigation a chest X-ray has been performed. What is the single most likely chestXray appearance?
   A. Apical granuloma
   B. Bilateral hilar lymphadenopathy
   C. Lobar consolidation
   D. Pleural effusion
   E. Reticular shadowing in the bases

Ans. The key is B. bilateral hilar lymphadenopathy. [Diagnosis is sarcoidosis, more specifically Lofgren's syndrome. It is the triad of i) erythema nodosum ii) bilateral hilar lymphadenopathy and iii) arthralgia].

10. A patient complains of SOB (shortness of breath), wheeze, cough and nocturnal waking. He has dry scaly shin with rashes that are itchy. What is the single most likely diagnosis?
    A. Scabies
    B. Eczema
    C. Rheumatism
    D. Dermatitis
    E. Psoriasis

Ans. The key is B. Eczema. [Asthma may be associated with atopy].

11. A child suffering from asthma presents with Temp 39C, drooling saliva on to the mother's lap, and taking oxygen by mask. What sign will indicate that he is deteriorating?
    A. Intercostal recession
    B. Diffuse wheeze
    C. Drowsiness

Ans. The key is C. Drowsiness. [Intercostal recession is a sign of severe asthma but it can be seen at a lesser degree as well. So drowsiness is more appropriate answer].

12. A 48-year-old farmer presented with fever, malaise, cough and SOB. Examination: tachypnea, coarse end-inspiratory crackles and wheeze throughout, cyanosis. Also complaint severe weight loss. HisCXR shows fluffy nodular shadowing and there is PMN (polymorphonuclear) leukocytosis. What is the single most appropriate diagnosis?
    A. Ankylosing spondylitis
    B. Churg-strauss syndrome
    C. Cryptogenic organizing
    D. Extrinsic allergic alveolitis
    E. Progressive massive fibrosis

Ans. The key is D. Extrinsic allergic alveolitis. [Hypersensitivity pneumonitis (also known as extrinsic allergic alveolitis) refers to a group of lung diseases in which lungs become inflammed as an allergic reaction resulting from exposure to dusts of animal and vegetable origin. It starts with fever, muscular aches and a general, unwell feeling or malaise. These symptoms are accompanied by tightness in the chest, a dry cough, and shortness of breath. Symptoms may develop between 4 and 8 hours after exposure. Chest X-ray shows fluffy nodular shadowing and there is polymorphoneuclear leukocytosis. Treatment of extrinsic allergic alveolitis initially depends on identification of the cause of the allergic reaction. If possible, the patient should avoid exposure to the allergen. In an occupational setting, mild cases may be alleviated by improved ventilation or use of air filtering masks].

13. A 30-year-old female attends OPD with a fever and dry cough. She says that she had headache, myalgia and joint pain like one week ago. Examination: pulse 100bpm, temperature 37.5C. CXR: bilateral patchy consolidation. What is the single most likely causative organism?
    A. Pneumococcal pneumonia
    B. Legionella
    C. Mycoplasma
    D. Klebsiella
    E. Chlamydia pneumonia

Ans. The key is C. Mycoplasma. [Myalgia, joint pain, headace, bilateral patchy consolidations points towards mycoplasma pneumonia].

14. A 45-year-old IV drug abuser is brought into the emergency deppartment with complaint of fever, shivering, malaise, SOB and productive cough. Examination: temperature 39C, pulse 110bpm, BP 100/70mmHg. Investigation: CXR bilateral cavitating bronchopneumonia. What is the single most likely causative organism?
    A. Mycoplasma
    B. Staphylococcus
    C. Chlamydia pneumonia

D. Pseudomonas
E. PCP (pneumocystis carinii pneumonia)

Ans. The key is B. Staphylococcus. [Among the given causes Staphylococcus and PCP are recognized cause of cavitating pneumonia. This case is with productive cough which goes more with staphylococcus as PCP is not productive but rather associated with dry cough. Drug abuse can support both staphylococcus and PCP].

15. A 45-year-old chronic smoker attends the OPD with complaints of persistent cough and copiousamount of purulent sputum. He had history of measles in the past. Examination: finger clubbing andinspiratory crepitations on auscultation. What is the single most likely diagnosis?
    A. Interstitial lung disease
    B. Bronchiectasis
    C. Asthma
    D. COPD
    E. Sarcoidosis

Ans. The key is B. Bronchiectasis. [Persistent cough with copious purulent sputum and finger clubbing points towards the diagnosis of bronchiectasis. Severe lung infections such as tuberculosis (TB), whooping cough, pneumonia or measles can damage the airways at the time of infection. Bronchiectasis may then develop later on].

16. A 68-year-old man has had malaise for 5 days and fever for 2 days. He has cough and there is dullness to percussion at the left lung base. What is the single most appropriate investigation?
    A. Bronchoscopy
    B. CXR
    C. CT
    D. MRI
    E. V/Q scan

Ans. The key is B. CXR. [Given presentation is suggestive of pneumonia for which investigation of choice is CXR].

17. A tall thin young man has sudden pain in the chest and becomes breathless while crying. What is the single most appropriate investigation?
    A. Cardiac enzymes
    B. CXR
    C. CT
    D. ECG
    E. V/Q scan

Ans. The key is B. CXR. [tall thin young men are particularly prone to develop pneumothorax. Sudden pain and breathlessness in this young man are highly suggestive of pneumothorax. So investigation of choice is CXR].

18. A 55-year-old woman with a persistent cough and history of smoking develops left sided chest painexacerbated by deep breathing with fever and localized crackles. What is the single most appropriate diagnosis?
    A. Dissecting aneurysm
    B. Pericarditis
    C. Pneumonia
    D. Pneumothorax
    E. Pulmonary embolism

Ans. The key is C. Pneumonia. [chest pain exacerbated with deep breathing, fever and localized crackles are highly suggestive of pneumonia].

19. A 14-year-old boy with asthma suddenly developed chest pain and increasing breathlessness during a game of football. When seen in the emergency department he was not cyanosed. He has reduced breath sounds on the right side. His oxygen saturation is 94% on air. What is the single most appropriate investigation?
    A. Capillary blood gases
    B. CXR
    C. CT chest
    B. Exercise challenge
    E. MRI chest

Ans. The key is B. CXR. [Asthma is a predisposing factor for spontaneous pneumothorax. The presentation indicates pneumothorax for which most appropriate investigation is CXR].

20. A 39-year-old man presents to the emergency department with persistent cough, sputum and dyspnea. He gave a history of smoking 20 cigarettes/day for the last 10 years. Patient was given oxygen in ambulance but he is notimproving. What is the next step?
    A. Prednisolone
    B. Salbutamol
    C. Check ABG
    D. CXR
    E. ECG

Ans. The key is C. Check ABG. [The patient has COPD and as no improvement with oxygen, next step is to check ABG to give guidance for next treatment plan (need for assisted ventilation)].

21. A 35-year-old man has a temperature of39C, cough with purulent sputum and right sided chest pain oninspiration. He has herpes labialis. What is the single most likely causative organism?

A. Coagulase +ve cocci in sputum
B. Gram -ve diplococci in sputum
C. Gram +ve diplococci in sputum
D. Pneumocystis carinii in sputum
E. Serology for legionella

Ans. The key is C. Gram +ve diplococcic in sputum. [High temperature, cough with purulent sputum, pleuritic chest pain and herpes labialis are recognized feature of pneumococcal pneumonia. This pneumococcus is Gram +ve diplococci].

22. A 16-year-old girl has been unwell for 5days with malaise, headache and dry cough. She has a few crackles in her chest. Her CXR shows patchy consolidation in the lower lobes. What is the single most likely causative organism?
    A. Cold agglutinins
    B. Gram –ve diplococci in sputum
    C. Gram +ve diplococcic in sputum
    D. Serology for legionella
    E. Sputum staining for mycobacterium TB

Ans. The key is A. Cold agglutinins. [Mycoplasma pneumonia, a form of atypical bacterial pneumonia related to cold agglutinin disease].

23. A 56-year-old man complains of increased volume of sputum with specks of blood and chest pain. He has a history of DVT. Examination: clubbing. What is the cause of blood in his sputum?
    A. Pulmonary thrombosis
    B. Bronchial carcinoma
    C. Bronchiectasis
    D. Pulmonary TB

Ans. The key is C. Bronhiectasis. [Increased volume of sputum with specks of blood and clubbing points towards bronchiectasis].

24. A 32-year-old female has a history of SOB (shortness of breath) and fever. Pre-broncho-dilation test was done and it was 2/3.5 and post-bronchodilator was 3/3.7. The patient has history of eczema and past TB. What is the possible diagnosis?
    A. COPD
    B. Asthma
    C. Pneumonia
    D. Bronchiectasis

Ans. The key is B. Asthma. [Air way reversibility and presence of atopy (eczema) favours the diagnosis of asthma].

25. A 53-year-old man with previous history of COPD presents with breathlessness and purulent sputum. O2 staturation 85% on air. ABG: PaO2-7.6, PaCO2-7. What is the appropriate management for his condition?
    A. 24% oxygen
    B. Mechanical ventilation
    C. 100% oxygen
    D. Nebulized salbutamol

Ans. The key is A. 24% oxygen. [Patient has hypoxemia and hypercapnea (type2 respiratory failure). Hence he should be put on 24% oxygen. 100% oxygen will abolish hypoxic drive and worsen hypercapnea].

26. A 60-year-old is on treatment for IHD (ischemic heart disease), HTN (hypertension) and hyperlipidemia. During the night he complains of wheeze and SOB (shortness of breath). Which of the following medicine is responsible for that?
    A. Amlodipine
    B. Atenolol
    C. Ramipril
    D. Simvastatin
    E. Bendroflumethiazide

Ans. The key is B. Atenolol. [Asthma can be precipitated by beta blockers (in practice it is seen that even cardioselective beta blockers can precipitate or aggravate asthma].

27. A patient presents with progressive dyspnea. He complains of cough, wheeze and a table spoonful of mucopurulent sputum for the last 18m. Spirometry has been done. FEV1/FVC 2.3/3.6. After taking salbutamol, the ratio is 2.4/3.7. What is the most likely diagnosis?
    A. Chronic bronchitis
    B. Asthma
    C. Bronchiectasis
    D. Lung fibrosis
    E. Sarcoidosis

Ans. The key is A. Chronic bronchitis. [Progressive dyspnoea, wheeze productive cough and the result of spirometry (prebronchodilator FEV1/FVC ratio of 64% and postbronchodilator FEV1/FVC ratio of 65%] points towards the diagnosis of chronic bronchitis. Some may think of bronchiectasis! But in bronchiectasis there is copious purulent sputums (as cup full of sputum not table spoon full!)].

28. A 62-year-old man presents with cough, breathlessness and wheeze. 24% O2, salbutamol andhydrocortisone were given. The symptoms haven't improved and so nebulized bronchodilatorwas repeated and IV aminophylline was given. ABG: pH 7.31, RR 32. What is the nextappropriate management?
    A. Nasal IPPV
    B. Intubation and ventilation

C. LABA
D. Doxapram
E. Amoxicillin PO

Ans. The key is A. Nasal IPPV. [Here given case is COPD has following indications of Nasal IPPV i) Tachypnea (>24 breaths/min) and ii) Hypercapnic respiratory acidosis (pH range 7.10-7.35)].

29. A 19-year-old man has exercised induced asthma and is using a salbutamol inhaler as required andbeclamethasone 400ug BD. He complains that he has to wake up at night for his inhaler. What is the single most appropriate tretment?
    A. Beclomethasone dipropionate
    B. Regular salbutamol and budesonide
    C. Sodium cromoglycate
    D. Oral steroid
    E. Leukotriene receptor antagonist

Ans. The key is E. Leukotriene receptor antagonist.

30. A 27-year-old man presents with chest pain and respiratory distress. Examination: tachycardia, hypotension and neck vein distension. Trachea is deviated to the left side, breath sounds on right side are absent and diminished on left side. What is the next appropriate management?
    A. CXR
    B. Right side aspiration (16G)
    C. Left side aspiration (16G)
    D. Right side drain with a small tube (12F)
    E. Left side drain with a small tube (12F)

Ans. The key is B. Right side aspiration (16G). [Diagnosis is right sided massive pneumothorax].

31. An 83-year-old man with longstanding COPD has become progressively breathless over the last 2years. He is on salbutamol, ipratropium, salmeterol, beclomethasone and theophylline. His FEV1<30%. What is the next appropriate management?
    A. Lung transplant
    B. Trial of CPAP
    C. Trial of non-invasive ventilation
    D. Assessment for long term O2 therapy
    E. Short course of O2 therapy

Ans. The key is D. Assessment for long term O2 therapy. [Patient is progressively breathless with present FEV1 of <30%. So his respiratory deterioration indicates progressive respiratory failure for which he should be assessed for long term O2 therapy. Long-term oxygen therapy (LTOT) for more than 15 h/day improved mortality and morbidity in a well-defined group of patients with chronic obstructive pulmonary disease. Requirement of condition to proceed to LTOT is patient should be stable and on

appropriate optimum therapy (as in given case) and having stopped smoking tobacco. Patient should be shown to have a PaO2 less than 7.3 kPa and/or a PaCO2 greater than 6 kPa on two occasions at least 3 weeks apart. FEV1 should be less than 1.5 litres, and there should be a less than 15% improvement in FEV1 after bronchodilators. Patients with a PaO2 between 7.3 and 8 kPa who have polycythaemia, right heart failure or pulmonary hypertension may gain benefit from LTOT].

32. A 33-year-old man has a temperature of38.5C, cough and chest pain on the right side on inspiration. He also has purulent sputum. What is the most likely organism to cause pneumonia in this patient?
    A. Gram +ve diplococcic
    B. Coagulase +ve cocci
    C. PCP cold agglutinins
    D. AFB
    E. Gram –ve diplococcic

Ans. The key is A. Gram +ve diplococci. [It is a case of community acquired pneumonia caused by streptococcus pneumoniae].

33. During a basketball match, one of the players suddenly collapsed to the ground with coughing and SOB (shortness of breath). What is the investigation of choice?
    A. CXR
    B. CT
    C. MRI
    D. V/Q scan
    E. CTPA

Ans. The key is A. CXR. [Likely diagnosis is pneumothorax. So investigation of choice is CXR].

34. A tall rugby player was hit in the chest by a player of the opponent team. He developed breathlessness and his face went blue and purple. You have been called to look at him, how willyou manage him?
    A. Insert a needle in the 2nd ICS in the mid-clavicular line
    B. Insert a needle in the 5th ICS in the mid-axillary line
    C. Intubate the patient
    D. Start CPR
    E. Give oxygen

Ans. The key is E. give oxygen. [1. The patient went blue and purple!! It is due to catch up of breath and it is not cyanosis of pneumothorax as cyanosis of pneumothorax takes time to develop and considered as a late feature. Immediate feature is chest pain, tachycardia, tachypnea etc].

35. A 64-year-old man complains of increasing SOB (shortness of breath)and cough for the past 18months. He coughs up a table spoonful of mucopurulent sputum with occasional specks of blood. What is the most likely underlying cause?

A. Acute bronchitis
B. Bronchiectasis
C. Chronic bronchitis
D. Lung cancer
E. Pneumonia

Ans. The key is C. Chronic bronchitis. [There may be specks of blood in sputum in both bronchiectasis , acute and chronic bronchitis. Duration of disease is 18 months, so it is not acute bronchitis. Again only one tablespoonful sputum does not justify the term copious sputum of bronhiectasis in which sputum will be much more like cup-full in amount. So it is chronic bronchitis].

36. A 75-year-oldman presents with Bell's palsy. His past medical history is significant for late onset asthma and heart failure. He also reports to have consulted his GP for generalized rash previously. CXR shows multiple soft shadows and CBC eosinophilia. What is the single most likely positive antibody?
    A. P ANCA
    B. C ANCA
    C. Anti Ro
    D. Anti DS DNA
    E. Anti centromere

Ans. The key is A. p-ANCA. [The diagnosis is Charg Strauss Syndrome (CSS). There are six criteria for diagnosis of CSS:

Asthma (wheezing, expiratory rhonchi).
Eosinophilia of more than 10% in peripheral blood.
Paranasal sinusitis.
Pulmonary infiltrates (may be transient).
Histological confirmation of vasculitis with extravascular eosinophils.
Mononeuritis multiplex or polyneuropathy.
The presence of four out of six of these features has a high specificity and sensitivity for the diagnosis of CSS.
In the given case there are 1. Bell's palsy (mononeuritis multiplex) 2. Asthma 3. Multiple soft shadows on CXR (pulmonary infiltrates) 4. Eosinophilia. Presence of these 4 features are diagnostic of CSS. In CSS 70% patient is p-ANCA positive!].

37. A 68-year-old woman presents to the emergency department with confusion. Temperature 39.3C and productive cough. Sputum is rusty colored after 2 days. CXR shows right lower lobe consolidation. What is the most likely organism?
    A. Streptococcus pneumonia
    B. Staphylococcus aureus
    C. Coxiella burnetti
    D. Mycoplasma pneumonia

Ans. The key is A. Streptococcus pneumonia.

38. A nonsmoker who has worked in coal mines for 20years presents with gradually increasing SOB (shortness of breath), limited exercise tolerance and a dry cough. His CXR shows round fibrotic tissue demonstrating a mixed restrictive and obstructive ventilator defect with irreversible airflow limitation and reduced gas transfer. What is the single most appropriate diagnosis?
    A. Churg-strauss syndrome
    B. Cryptogenic organizing
    C. Extrinsic allergic alveolitis
    D. Good pasture's syndrome
    E. Progressive massive fibrosis
    F. Molluscum

Ans. The key is E. Progressive massive fibrosis. [Coal miners pneumoconiosis. Coal worker's pneumoconiosis (CWP) can be defined as the accumulation of coal dust in the lungs and the tissue's reaction to its presence. Simple coal worker's pneumoconiosis are usually asymptomatic. Progressive massive fibrosis produces cough, dyspnea, and lung function impairment].

39. A 25-year-old man has been suffering from breathlessness and wheeze for 3months. He has been taking salbutamol 2puffs as required. In the last 2 weeks his symptoms have worsened and he has to take salbutamol more frequently during the day time. He also complains of excessive dyspnea at night. What drugs or regimen would you like to add?
    A. Prednisolone
    B. Fluticasone + salbutamol inhaled
    C. Beclomethasone inhaled
    D. Montelukast PO
    E. Salmetrol PO

Ans. The key is C. Beclomethasone inhaled. [Patient was in step 1. As not controlled next step is addition of inhaled corticosteroid].

40. A12-year-old presents with chest pain. Examination: tachycardia, hypotension, dilated neck veins and the trachea is not centrally placed. What is the next appropriate management?
    A. Portable XR
    B. Needle thoracocenthesis
    C. Chest drainage
    D. ABG
    E. CTPA

Ans. The key is B. Needle thoracocentesis. [A case oftension pneumothorax].

41. A 55-year-old male presents to the emergency department after an RTA (road traffic accident) with breathlessness, engorged neck veins and a dull percussion note on the right

side of his chest. Examination: pulse 140bpm, BP 80/50mmHg. What is the most likely diagnosis?
A. Hemothorax
B. Hemopneumothorax
C. Tension pneumothorax
D. Simple pneumothorax

Ans. The key is B. Hemopneumothorax. [Dull percussion note indicates presence of blood. Also low BP and shock favours more towards hemopneumothorax. Please note in pure hemothorax there is volume depletion so that neck veins do not rise].

42. A 30-year-old woman is taking treatment for asthma. She has a heart rate130bpm and peak expiratory flow rate 400. What is the most appropriate management?
A. Atenolol
B. Digoxin
C. Review drugs

Ans. The key is C. Review drugs. [Oral beta agonist frequently causes tachycardia and palpitations].

43. A 16-year-old boy came home from boarding school with a cough. His CXR showed bilateral consolidations. What is the most likely organism which would have caused his symptoms?
A. Legionella pneumophilia
B. Mycoplasma pneumonia
C. Mycobacterium TB
D. Pneumocystis jiroveci
E. Pseudomonas aeruginosa

Ans. The key is B. Mycoplasma pneumonia. [Mycoplasma is common in military barrack, prison or boarding dwellers].

44. A young man returns to his hostel and gets headache and lethargy. Now presents with fever. There are crepitations on the auscultation of lung. What is the most likely organism which would have caused his symptoms?
A. Legionella pneumonia
B. Mycoplasma
C. Staphylococcus
D. Streptococcus

Ans. The key is A. Legionella pneumonia. [Legionella is common in hostel, hotel, hospital, nursing home where it spread through their water system, aircondition etc.].

45. A 24-year-old male is admitted with acute severe asthma. Treatment is initiated with 100% oxygen, nebulized salbutamol and ipratropium bromide nebulizers and IV hydrocortisone. Despite initial treatment there is no improvement. Which is the next step in management?

A. IV aminophylline

B. IV magnesium sulphate

C. IV salbutamol

D. IM adrenaline

E. IV adrenaline

Ans. The key is B. IV magnesium sulphate. [If patient not improving after 15-30 minutes of above treatment:

- Continue oxygen and steroids.
- Use continuous nebulisation of salbutamol at 5-10mg/hour if specialist nebuliser available. Otherwise give nebulised salbutamol 5mg every 15–30 minutes.
- Continue ipratropium 0.5mg 4–6 hourly until patient is improving.

IF PATIENT IS STILL NOT IMPROVING:

Consider IV magnesium sulphate 1.2–2g over 20 minutes].

46. A house-bound 78-year-old man with severe COPD has had a gradual deterioration over recent months and is now breathless at rest. He is on maximal inhaled medical therapy. Result: pH 7.36, PaCO2 5.9kPa, PaO2 6.9kPa. What is the single most appropriate additional treatment?
    A. Aminophylline PO
    B. ACEi PO
    C. Antibiotic PO
    D. Oxygen
    E. Steroid PO

Ans. The key is D. Oxygen. [In patients with chronic hypoxaemia, LTOT should usually be prescribed after appropriate assessment, when the PaO2 is consistently at or below 7.3 kPa (55 mm Hg) when breathing air during a period of clinical stability. Clinical stability is defined as the absence of exacerbation of chronic lung disease for the previous five weeks. The level of PaCO2(which may be normal or elevated) does not influence the need for LTOT prescription].

47. A 16-year-old boy in boarding school feels unwell. He developed cough and rash. His CXR showed bilateral consolidations. What is the cause of his symptoms?
    A. Staph aureus
    B. Legionella
    C. Mycoplasma
    D. Streptococcus

Ans. The key is C. Mycoplasma. [Rash, bilateral consolidation favours mycoplasma pneumonia. Mycoplasma is common in military barrack, prison or boarding dwellers].

48. A man suffering from Influenza A since 5days ago. CXR: pneumonia. What organism is responsible for pneumonia in this patient?
    A. Hemophilius influenzae
    B. Klebsiella
    C. Staphylococcus aureus
    D. Streptococcus pneumonia
    E. Pseudomonas

Ans. The key is C. Staphylococcus aureus. [Post flue pneumonia is usually caused by staphylococcus aureus].

49. A35-year-old man has been diagnosedas allergic rhinitis and asthma. Examination: peripheral neuropathy with tingling and numbness in a 'glove and stocking' distribution. Skin lesions are present in the form of tender subcutaneous nodules. The patient is responding well to corticosteroids. What is the single most appropriate diagnosis?
    A. AS
    B. Churg-strauss syndrome
    C. Cryptogenic organizing
    D. Extrinsic allergic alveolitis
    E. Tropical pulmonary eosinophilia

Ans. The key is B. Churg-strauss syndrome. [The American College of Rheumatology has identified six criteria for the diagnosis of CSS:

- Asthma (wheezing, expiratory rhonchi).
- Eosinophilia of more than 10% in peripheral blood.
- Paranasal sinusitis.
- Pulmonary infiltrates (may be transient).
- Histological confirmation of vasculitis with extravascular eosinophils.
- Mononeuritis multiplex or polyneuropathy.

The presence of four out of six of these features has a high specificity and sensitivity for the diagnosis of CSS].

50. A 49-year-old man comes with history of cough and SOB. His CD4 count is measured as 350. CXR shows lobar consolidation. What is the single most appropriate option?
    A. Mycobacterium avium intercellular
    B. CMV

C. Streptococcus
D. Toxoplasmosis
E. Pneumocystis jerovici

Ans. The key is C. Streptococcus. [Though CD4 count indicates immunodeficincy syndrome features are consistent with lobar pneumonia].

51. A 40-year-old patient came to OPD with complaint of fever, pleuritic chest pain, productive cough and painful vesicles around the lips. Exam: temp 38C. He has a history of splenectomy last year. What is the single most likely causative organism?
    A. Pneumococcal pneumonia
    B. Staphylococcus
    C. Klebsiella
    D. Streptococcus
    E. Chlamydia psitacci

Ans. The key is A. Pneumococcal pneumonia. [Pneumococcal pneumonia is most common pneumonia in splenectomized patient. Painful vesicles around the lips is well known association of pneumococcal pneumonia. Also pleuritic chest pain and productive cough are present in pneumococcal pneumonia].

52. A 37-year-old male patient who recently returned back to UK from UAE attends the OPD with complaint of dry cough, breathlessness and anorexia. According to him he had flu like symptoms a week ago. He is slightly confused. Investigations: lymphopenia & decreased Na+. CXR: bi-basal consolidation. What is the single most likely causative organism?
    A. Legionella
    B. Chlamydia pneumonia
    C. PCP
    D. Viral pneumonia
    E. Chlamydia psitacci

Ans. The key is A. Legionella. [H/O travel (staying in AC and watersystem of hotel), lymphopenia, decreased Na+ and confusion are well known features of legionnaires disease].

53. A 20-year-old student came to the OPD with complains of headache, malaise, dry cough, joint pain and vomiting. Examination: temperature 39C. CXR: patchy consolidation. What is the single most likely causative organism?
    A. Pneumococcal pneumonia
    B. Mycoplasma
    C. Klebsiella
    D. Streptococcus
    E. PCP

Ans. The key is B. Mycoplasma. [Headache, dry cough, joint pain these are more pronouncedly commoner in mycoplasma pneumonia].

54. A man with chronic cough presents with copious purulent sputum. What is the single most likely diagnosis?
    A. Bronchitis
    B. Bronchiectasis
    C. COPD
    D. Pneumonia
    E. Emphysema

Ans. The key is B. Bronchiectasis. [Chronic cough with copious purulent sputum is suggestive of bronchiectasis].

55. A 25-year-old patient came to the OPD with complaint of fever, malaise, breathlessness, cough and anorexia. His girl friend has got similar symptoms. He had history of sore throat and ear discharge a month ago. What is the single most likely causative organism?
    A. Legionella
    B. Mycoplasma
    C. Chlamydia pneumonia
    D. PCP
    E. Chlamydia psitacci

Ans. The key is C. Chlamydia pneumonia. [Please note sorethroatis a clue for chlamydia as well as about 4 weeks prior exposure history is also a pointer].

56. A 50-year-old DM patient came to the OPD with complaint of fever, muscle ache, dry cough and anorexia. Investigation: CXR shows upper lobe cavitation. What is the single most likely causative organism?
    A. Legionella
    B. Mycoplasma
    C. Staphylococcus
    D. Klebsiella
    E. Streptococcus

Ans. The key is D. Klebsiella. [Upper lobe cavitation favours Klebsiella pneumonia. Also it is well known that klebsiella pneumonia are more common in DM than normal person].

57. 29-year-old woman who returned from Egypt 2 weeks ago now presents with difficulty in breathing, chest pain, cough and purulent sputum with an episode of blood staining. She is on COCPs. What is the most likely diagnosis?
    A. Pulmonary embolism
    B. Pneumonia
    C. Lung abscess
    D. Pneumothorax
    E. Pulmonary edema

Ans. The key is B. Pneumonia. [Purulent sputum is the clincher to differentiate pneumonia from pulmonary embolism here].

58. An 83-year-old elderly woman presented in the emergency department with cough, fever and sneezing. Treatment was given but she became confused and again presented with above said symptoms. What is the cause of her condition?
    A. Aspiration due to confusion
    B. Alveolar damage due to drugs
    C. Drug toxicity
    D. Pneumothorax

Ans. The key is A. Aspiration due to confusion. [Aspiration pneumonia is a common disease that frequently occurs in elderly patients. Most patients with aspiration pneumonia have swallowing disability which is worsen in patients with confusion].

59. A 37-year-old man presents with some raised lesions on the shin. He came with cough and also complains of arthralgia. Examination: bilateral hilar lymphadenopathy and erythema nodosum is present. What is the single most likely cause?
    A. CD (crohn's disease)
    B. UC (ulcerative colitis)
    C. Sarcoidosis
    D. Streptococcal infection
    E. TB

Ans. The key is C. Sarcoidosis. [Cough, arthralgia, bilateral hilar lymphadenopathy and erythema nodosum are suggestive of sarcoidosis].

60. A patient who works in a pet shop has temperature of 37.5C, dyspnea, chest pain and cough. CXR: patchy consolidation. What is the most suitable treatment?
    A. Amoxicillin
    B. Tetracyclin
    C. Erythromycin
    D. Clarithromycin
    E. Penicillin

Ans. The key is D. Clarithromycin. [Diagnosis Psittacosis. OHCM, 9th edition].

61. An 83-year-old woman admitted with a chest infection becomes confused with impaired attention and poor concentration. She is restless and frightened. She is verbally abusive and has perceptual abnormalities. There is no significant previous psychiatric history. What is the SINGLE most likely diagnosis?
    A. Delirium
    B. Drug induced psychosis
    C. Lewy body dementia

D. Multi-infarct dementia
E. Psychotic depression

Ans. The key is A. Delirium. [Delirium or Acute Confusional States happen in the elderly in response to stressors like acute infections and this is most likely brought on by the chest infection that has developed].

62. A 20-year-old previously healthy woman presents with general malaise, severe cough and breathlessness which has not improved with a seven day course of amoxycillin. There is nothing significant to find on examination. The x-ray shows patchy shadowing throughout the lung fields. The blood film shows clumping of red cells with suggestion of cold agglutinins.
    A. Mycobacterium avium complex
    B. Coxiella burnetii
    C. Escherichia coli (Gram -ve)
    D. Haemophilus influenza
    E. Legionella pneumophila
    F. Strep pneumococcus
    G. TB
    H. Mycoplasma pneumonia
    I. PCP
    J. Staph aureus

Ans. The key is H. Mycoplasma pneumonia. [Inability to respond to a seven day course of amoxicillin suggests atypical pneumonia, patchy shadows throughout lung fields and cold agglutination points towards mycoplasma].

63. A patient with chronic neutropenia develops a chronic cough. A CXR reveals a cavitating intrapulmonary lesion containing a movable rounded ball lesion. A likely diagnosis is?
    A. Tuberculosis
    B. Bronchiectasis
    C. Cystic fibrosis
    D. Pulmonary hemosiderosis
    E. Mitral stenosis
    F. Aspergillosis
    G. Wegener's granulomatosis
    H. Goodpasture's syndrome
    I. Pulmonary embolism
    J. Non-SCLC

Ans. The key is F. Aspergillosis. [Mostly affects people with reduced immunity, reduced neutrophil count is also predilection for aspergillosis].

64. A 29-year-old Afro-Caribbean man presents with a non-productive cough mild aches in the ankles. The symptoms have been present for 2 months. His ESR is elevated. Ca: 2.69 mmol/l; PO4 -: 1.20 mmol/l; ALP: 80 iu/L. Serum 25(OH) D: 180 nmol/l Normal values for Calcium: 2.12-2.65mmol/l; Phosphate: 0.8-1.45mmol/l; ALP 30-300iu/L; Serum 25(OH) D: 20-105nmol/l; Urea: 2.5-6.7mmol/l; Creatinine: 70-120µmol/l
    A. Osteoporosis
    B. Thiazide diuretics
    C. Skeletal metastases
    D. Primary hyperparathyroidism
    E. Hypoparathyroidism
    F. Osteomalacia
    G. Multiple myeloma
    H. Paget's disease of bone
    I. Sarcoidosis
    J. Hyperthyroidism

Ans. The key is I. Sarcoidosis.

65. A 7-year-old boy with frequent episodic asthma is on treatment with sodium cromoglycate. His physician wants to add a non-steroid preventer. The mother of the boy, a teacher, has just read about a nonsteroidal medication which acts on the mast cells, stopping them from releasing harmful chemicals. Her physician agrees to add this medication to the boy's drug regimen. Which medication is the physician most likely to add to the boy's treatment?
    A. Inhaled short acting bronchodilator
    B. SC adrenaline
    C. Nedocromil Sodium
    D. Inhaled long acting bronchodilator
    E. Inhaled sodium cromoglycate
    F. Inhaled steroids
    G. Inhaled SABA
    H. Oral steroids
    I. Nebulised bronchodilators
    J. Oral theophylline

Ans. The key is C. Nedochromil Sodium.

66. A 70-year-old woman presents with confusion and productive cough. CXR shows right lower lobe consolidation. What is the SINGLE most likely causative organism?

A. Actinomycosis
B. Pneumocystis carinii
C. Streptococcus pneumoniae

D. Mycoplasma pneumoniae
E. Staphylococcus aureus

Ans. The key is C. Streptococcus pneumonia. [We know aspiration pneumonia in elderly may be community acquired. Streptococcus pneumoniae predominates in community-acquired cases, (those who are not hospitalized- as for presenting case) and Staphylococcus aureus and Gram negative organisms predominate in hospital-acquired cases].

67. A pet shop owner presents with high swinging fever, cough and malaise. He has scanty rose spots over his abdomen. CXR reveals diffuse pneumonia, What is the SINGLE most likely causative organism?

A. Chlamydia psittaci
B. Streptococcus pneumoniae
C. Mycoplasma pneumoniae
D. Haemophilus influenzae
E. Staphylococcus aureus

Ans. The key is A. Chlamydia psittaci.

68. A 70-year-old alcoholic man presents with sudden onset of purulent productive cough. CXR shows consolidations left upper lobe. What is the SINGLE most likely causative organism?

A. Pneumocystis carinii
B. Aspergillus fumigatus
C. CMV
D. Actinomyces israelli
E. Kiebsiella pneumonia

Ans. The key is E. Klebsiella pneumoniae. [Klebsiella pneumoniae is the prevalent organism in alcoholics (but recent study have shown that Streptococcus pnemoniae is the leading cause)].

69. A 10-year-old boy with cystic fibrosis presents with pneumonia. What is the SINGLE most likely causative organism?

A. Pseudomonas aeruginosa
B. Pneumocystis carinii
C. Aspergillus fumigatus
D. CMV
E. Actinomyces israelli

Ans. The key is A. Pseudomonas aeruginosa. [In infancy Staphylococcus aureus is the predominant organism and later Pseudomonas aeruginosa becomes the predominant one in children with the disease cystic fibrosis].

70. A 30-year-old man with AIDS presents with fever, dry cough and dyspnoea, CXR shows

diffuse bilateral alveolar and interstitial shadowing beginning in the perihilar regions and spreading outward, What is the SINGLE most likely causative organism?

A. Pseudomonas aeruginosa
B. Pneumocystis carinii
C. Aspergillus fumigatus
D. CMV
E. Actinomyces israelli

Ans. The key is B. Pneumocystis carinii. [Pneumocystis carinii also known as Pneumocystis jirovecii is a yeast-like fungus. Pneumocystis specimens are commonly found in the lungs of healthy people although it is usually not a cause for disease. However, they are a source of opportunistic infection and can cause lung infections in people with a weak immune system or other predisposing health conditions. PCP is seen in people with HIV/AIDS (who account for 30-40% of PCP cases), those using medications that suppress the immune system, and people with cancer, autoimmune or inflammatory conditions, and chronic lung disease].

71. A 26-year-old man presents to the A & E department with shortness of breath of 3 days duration. He has been coughing during the night and using his salbutamol inhaler more frequently. What is the single most appropriate investigation?
A. Arterial blood gases
B. Chest X-ray
C. Electrocardiogram (ECG)
D. Haemoglobin
E. Magnetic resonance imaging scan (MRI) of the chest

Ans. The key is A. Arterial blood gases. [Arterial blood gases are valuable for assessing severity of exacerbations and response to treatment. It is useful to differentiate between type1 and type 2 respiratory failure].

72. A 22-year-old man presents to the A & E with sudden onset of sharp right-sided chest pain and shortness of breath. There is reduced air entry in the right side of the chest. What is the single most appropriate investigation?
A. Peak expiratory flow
B. Pulse oxymetry
C. Spiral computed Tomography scan of the chest
D. Chest X-ray
E. Arterial blood gases

Ans. The key is D. Chest X-ray. [Features (sudden chest pain with shortness of breath, reduced air entry) are consistent with pneumothorax for which Chest X-ray is the investigation of choice].

73. A 78-year-old woman is brought by her family to the A & E department with shortness of breath and occasional cough over the previous 72 hours. There is a coarse crepitation present at the right lung base. What is the single most appropriate investigation?
A. Arterial blood gases
B. Chest X-ray
C. Electrocardiogram (ECG)
D. Haemoglobin
E. Magnetic resonance imaging scan (MRI) of the chest.

Ans. B. Chest X-ray. [Probable pneumonia. Chest X-ray should be done].

COMPLETED

3. GASTROENTEROLOGY

1. A 60-year-old man presents with dysphagia and pain on swallowing both solids and liquids. A barium meal shows gross dilatation of the esophagus with a smooth narrowing at the lower end of the esophagus. What is the SINGLE most likely cause of dysphagia?
   A. Achalasia
   B. Myasthenia gravis
   C. Esophageal carcinoma
   D. Esophageal web
   E. Systemic sclerosis

Ans. The key is A. Achalasia. [Achalasia Cardia is a primary motility disorder of the esophagus characterized by aperistalsis and defective lower esophageal sphincter relaxation. The pathogenesis of achalasia cardia is poorly understood. However recent evidences indicate that it is an autoimmune process trigerred by some virus (e.g herpes virus) in a genetically predisposed individual resulting in degeneration of myenteric neurons .Dysphagia for both solid and liquid or prominently liquid suggests achalasia where dysphagia to solid suggests stricture. Also gross dilatation of oesophagus with smooth narrowing at lower end is seen in achalasia. In achalasia dysphagia is usually described as progressive. The standard of care in patients with achalasia has been pneumatic balloon dilatation and laparoscopic heller's myotomy. Per oral endoscopic myotomy (POEM) is an novel minimally invasive treatment option for all types of achalasia cardia].

2. A 64-year-old patient has been having frequent episodes of secretory diarrhea, which is extremely watery, with large amounts of mucus. A diagnosis of villous adenoma was made after endoscopy. What electrolyte abnormality is most likely in this patient?
   A. Hyperkalemia

B. Hypernatremia
C. Hyponatremia
D. Hypokalemia

Ans. Correct key is both C and D! [Villous adenoma can cause both hyponatremia and hypokalemia].

3. A 32-year-old man presented with slow progressive dysphagia. There is past history of retro-sternal discomfort and he has been treated with prokinetics and H2 blockers. What is the probably diagnosis?
   A. Foreign body
   B. Plummer vinson syndrome
   C. Pharyngeal puch
   D. Peptic stricture
   E. Esophageal Ca

Ans. The key is D. Peptic stricture. [Progressive dysphagia (to mostly solid) is suggestive of peptic stricture which is supported here by the use of prokinetic drugs and H2 blockers which are used for reflux oesophagitis].

4. A woman who returned from abroad after 3 weeks of holiday complains of severe diarrhea of 3 weeks. She also developed IDA (Iron Deficiency Anaemia) and folic acid deficiency. What condition best describes her situation?
   A. Jejunal villous atrophy
   B. Chronic diarrhea secretions
   C. Malabsorption
   D. Increased catabolism
   E. Increased secretions of acid

Ans. The key is C. Malabsorpton. [Acute gastroenteritis (may be due to bacteria, virus or parasite) may cause transient malabsorption, probably as a result of temporary, superficial damage to the villi and microvilli].

5. A 55-year-old man has had severe pain in the right hypochondrium for 24hours. The pain comes in waves and is accompanied by nausea. Nothing seems to relieve the pain. He feels hot and sweaty but has normal temperature. What is the most appropriate next investigation?
   A. US Abdomen
   B. ERCP
   C. MRCP
   D. Serum amylase
   E. UGI endoscopy

Ans. The key is A. US Abdomen. [The features like i) severe right hypochondrial pain. ii) colicky nature of the pain (comes in waves) iii) nausea iv) absence of fever iv) absence of jaundice favours diagnosis of biliary colic and most appropriate next investigation is US abdomen].

6. A 48-year-old woman is admitted to emergency department with a productive cough and moderate fever. She has often central chest pain and regurgitation of undigested food most times but doesn't suffer from acid reflux. These symptoms have been present for the last 3.5 months which affects both food and drink. A CXR shows an air-fluid level behind a normal sized heart. What is the most likely diagnosis?
   A. Pharyngeal pouch
   B. Hiatus hernia
   C. Bulbar palsy
   D. Achalasia
   E. TB

Ans. The key is D. Achalasia. [Points in favour of achalasia: Points in favour: Aspiration pneumonia due to retained food and fluid in oesophagus. In achalasia usually there is no acid reflux. Dysphagia for both food and drink. Air-fluid level behind heart. This is not hiatus hernia because i) In hiatus hernia usually you will get associated GORD ii) Also in hiatus hernia there may be nausea or vomiting. This is not pharyngeal pouch as there is no halitosis].

7. A 35-year-old man presents with history of dyspepsia. H.Pylori antibodies are negative. No improvement is seen after 1m of treatment. What is the next step?
   A. Urea breath test
   B. Gastroscopy
   C. CT
   D. MRI

Ans. The key is B. Gastroscopy. [Not responding to treatment D/D is: i) JollingerElison syndrome ii) Ca stomach. Indications of gastroscopy in a 35 yo man (for man of age <50): i) Acute symptoms with H/O previous episode (PUD) ii) Alarm features (weight loss, anaemia, vomiting, hematemesis and melaena, dysphagia, palpable abdominal mass), fear of cancer, evidence of organic disease].

8. A 79-year-old lady who is otherwise well recently started abdominal pain. She is afebrile and complains that she passed air bubbles during urination. A urethral catheter showed fecal leakage in the urinary bag. What is the likely pathology?
   A. Diuretics
   B. CD
   C. Rectosigmoid tumor
   D. Large bowel perforation
   E. UC

Ans. The key is B. CD. [D/D is rectosigmoidaltumour. As there is no constitutional features of cancer like anorexia, weight loss, fever rectosigmoid tumour is unlikely. Crohn's disease can occur at any age, but is most frequently diagnosed in people ages 15 - 35. About 10% of patients are children under age 18. So Crohn's disease can occur in this age also and the feature like fistula is a common association of CD].

9. A young woman complains of diarrhea, abdominal cramps and mouth ulcers. Abdominal X-ray showsdistended transverse colon with globet cell depletion on rectal biopsy. What is the most probable diagnosis?
   A. CD (Crohn's disease)
   B. UC (Ulcerative colitis)
   C. Bowel Ca
   D. Bowel obstruction
   E. IBS (Irritable bowel syndrome)

Ans. The key is B. UC. [In UC there is goblet cell depletion and less mucous production in contrast with CD where there may be goblet cell hyperplasia and mucous secretion is not reduced. Please note aphthous ulcer can develop in both CD and UC].

10. A 28-year-old female presents with a 3months history of diarrhea. She complains of abdominal discomfort and passing stool 20 times/day. Examination:febrile. Barium enema shows cobblestone mucosa. What is the most likely diagnosis?
    A. Ameoba
    B. Colon Ca
    C. GE (gastroenteritis)
    D. CD (Crohn's disease)
    E. UC (ulcerative colitis)

Ans. The key is D. CD. [History of diarrhea, abdominal discomfort, and patient being febrile indicate gut inflammation and cobblestone appearance on barium enema is diagnostic of CD].

11. A-60 year-old woman presented to OPD with dysphagia. No history of weight loss or heartburn. No change in bowel habits. While doing endoscopy there is some difficulty passing through the LES (lower esophageal sphincter), but no other abnormality is noted. What is the single most useful investigation?
    A. CXR
    B. MRI
    C. Esophageal biopsy
    D. Esophageal manometry

Ans. The key is D. Esophageal manometry. [Diagnosis is achalasia. Characteristic manometric findings are:

Lower esophageal sphincter (LES) fails to relax upon wet swallow (<75% relaxation)

Pressure of LES <26 mm Hg is normal,>100 is considered achalasia, > 200 is nutcracker achalasia].

12. What is the pathological change in Barret's esophagitis?
    A. Squamous to columnar epithelium
    B. Columnar to squamous epithelium

C. Dysplasia
D. Metaplasia
E. Hyperplasia

Ans. The key is A. Squamous to columner epithelium. [Both A and D are correct answer as Barrett's oesophagus is a change known as metaplasia].

13. A 55-year-old woman complains of retrosternal chest pain and dysphagia which is intermittent and unpredictable. The food suddenly sticks in the middle of the chest, but she can clear it with a drink of water and then finish the meal without any further problem. A barium meal shows a 'corkscrew esophagus'. What is the single most likely cause of dysphagia?
    A. Esophageal candidiasis
    B. Esophageal carcinoma
    C. Esophageal spasm
    D. Pharyngeal pouch
    E. Plummer-vinson syndrome

Ans. The key is C. Esophageal spasm. [Chest pain, unpredictable intermittent dysphagia and food suddenly sticks in the middle of the chest which can be cleared with a drink of water indicates uncoordinated irregular esophageal peristalsis which is characteristic of esophageal spasm! Also "cork-screw esophagus" seen in barium swallow is diagnostic of esophageal spasm].

14. A 46-year-old man is being investigated for indigestion. Jejunal biopsy shows deposition of macrophages containing PAS (Periodic acid-schiff) +ve granules. What is the most likely diagnosis?
    A. Bacterial overgrowth
    B. Celiac disease
    C. Tropical sprue
    D. Whipple's disease
    E. Small bowel lymphoma

Ans. The key is D. Whipple's disease. [periodic acid-schiff +ve granules containing macrophages in jejunal biopsy is diagnostic of whipples disease. Whipple disease is a systemic disease most likely caused by a gram-positive bacterium, Tropherymawhippelii. Although the first descriptions of the disorder described a malabsorption syndrome with small intestine involvement, the disease also affects the joints, central nervous system, and cardiovascular system].

15. A patient presents with dysphagia and pain on swallowing. He has sore mouth and soreness in the corners of the mouth. What is the single most likely diagnosis?
    A. Kaposi's sarcoma
    B. Molluscum contagiosum
    C. CMV infection
    D. Candida infection
    E. Toxoplasma abscess

Ans. The key is D. Candida infection. [Candida and CMV infection both can be the answer but Candida is more common than CMV].

16. A child complains of RIF (right iliac fossa) pain and diarrhea. On colonoscopy, granular transmural ulcers are seen near the ileo-cecal junction. What should be the management?
    A. Sulfasalazine
    B. Paracetamol
    C. Ibuprofen
    D. Metronidazole

Ans. The key is A. Sulfasalazine. [Pain in RIF, diarrhea, granular transmural ulcers near the ileo-cecal junction points towards the diagnosis of Crohn's diseas (predominantly ileo-cecal type). We know for Crohn's disease treatment options are i) Corticosteroids ii) Immunosuppressant like azathioprine, mercaptopurine and methotrexate and iii) Biological agents like adalimumab, infliximab, vedolizumab and ustekinumab. However if the patient is child (steroid causes growth hamper) or can not tolerate corticosteroid alternate option used is 5-Aminosalicylate as Salfasalazine. As the given patient is a child answer for him is A. Salfasalazine].

17. A 30-year-old lady complains of intermittent diarrhea, chronic abdominal and pelvic pain and tenesmus. Sometimes she notices blood in her stool. Select the most likely cause leading to her symptoms?
    A. Inflammatory bowel disease
    B. Diverticulosis
    C. Irritable bowel disease
    D. Adenomyosis
    E. UTI

Ans. The key is A. Inflammatory bowel disease. [In diverticulosis there is usually constipation and diarrhea is less common. But in IBD there is usually diarrhea. Occasional blood in stool excludes irritable bowel disease. Adenomyosis can cause menstrual cramps, lower abdominal pressure, and bloating before menstrual periods and can result in heavy periods. UTI does not present like this. Answer is IBD (inflammatory bowel disease)].

18. A 40-year-old woman complains of dysphagia for both solids and liquids. She sometimes suffers from severe retrosternal chest pain. Barium swallow reveals a dilated esophagus which tapers to a fine distal end. What is the best management strategy?
    A. Reassurance
    B. Antispasmodics
    C. Dilatation of the LES
    D. Endoscopic diverticulectomy
    E. Barium swallow

Ans. The key is C. Dilatation of LES. [Dysphagia for both solids and liquids suggest neuromuscular dysphagia while dysphagia only for solid suggests mechanical obstruction. Here features are consistent

with achalasia for which lower oesophageal sphincter dilation (balloon dilatation) is a treatment modality].

19. A 38-year-old female G4 at 32wks of pregnancy presented with thick white marks on the inside of her mouth for 3weeks. Her mouth including her tongue appeared inflamed on examination. Shesmokes 20 cigarettes/day despite advice to quit. She attends her ANC regularly. What is the most probable diagnosis?
    A. Lichen planus
    B. Aphthous ulcer
    C. Smoking
    D. Candidiasis
    E. Leukoplakia

Ans. The key is D. Candidiasis. [lichen planus may have lace like appearance and not thick white mark. Aphthous ulcer has yellowish floor and surrounded by erythematous halo. Smoking maycause tongue coating but not like thick white mark on the inside of mouth. Leukoplakia is with raised edges/Bright white patches and sharply defined and cannot be rubbed out like candida patch; here also inflammed tongue points towards infection. So candidiasis is the most probable option]

20. An 83-year-oldwoman who is a resident in a nursing home is admitted to hospital with a 4days history of diarrhea. She has had no weight loss or change in appetite. She has been on analgesics for 3weeks for her back pain. She is in obvious discomfort. On rectal examination: fecal impaction. What is the single most appropriate immediate management?
    A. Codeine phosphate for pain relief
    B. High fiber diet
    C. Oral laxative
    D. Phosphate enema
    E. Urinary catheterization

Ans. The key is D. Phosphate enema. [In feacal impaction oral laxative is not the choice but phosphate enema is the best option here].

21. A 72-year-old man presents with intermittent difficulty in swallowing with regurgitation of stale food materials. Sometimes he wakes up at night with a feeling of suffocation. Choose the single most likely cause of dysphagia?
    A. Benign stricture
    B. Esophageal carcinoma
    C. Esophageal spasm
    D. Pharyngeal pouch
    E. Systemic sclerosis

Ans. The key is D. Pharyngeal pouch. [In benign stricture, esophageal carcinoma and systemic sclerosis there is persistent dysphagia not intermittent. In oesophageal spasm there may be intermittent

dysphagea but there will be no regurgitation of stale food material and no nocturnal regurgitation in recumbency. The clinical picture described is wellknown features of pharyngeal pouch].

22. A 36-year-old patient came with diarrhea, bleeding, weight loss and fistula. What is the single most likely diagnosis?
    A. Celiac disease
    B. Crohns disease
    C. UC
    D. IBS

Ans. The key is B. Crohns disease. [Fistula is commonly seen in Crohn's disease].

23. A 25-year-old woman is presenting with diarrhea and abdominal bloating over the last 4 months. Examination: she has blistering rash over her elbows. Biochemistry: low serum albumin, calcium and folate concentration. On jejunal biopsy, there is shortening of the villi and lymphocytosis. What is the most likely diagnosis?
    A. Celiac disease
    B. Whipple's disease
    C. Crohn's disease
    D. Tropical sprue
    E. Giardiasis
    F. Cystic fibrosis

Ans. The key is A. Celiac disease. [diarrhea, abdominal bloating, blistering skin rash over elbow (Dermatitis herpetiformis), low serum albumin, calcium and folate conc. Supported by shortening of villi and lymphocytosis on jejunal biopsy is classic presentation of celiac disease].

24. A 56-year-old woman has had severe abdominal pain for 24hours radiating to her back and is accompanied by nausea and vomiting. She appears to be tachycardic and in shock. She was found to have gallstones, 2years ago. What is the most likely investigation to confirm diagnosis?
    A. US abdomen
    B. LFT
    C. Serum lipase
    D. Angiography
    E. CT abdomen

Ans. The key is C. Serum lipase. [The likely diagnosis is pancreatitis. A normal lipase level can range from 0-160 U/L depending on the lab. When the pancreas is damaged, these digestive enzymes can be found in the blood at higher levels than normal. Amylase or lipase results more than three times normal levels are likely to mean pancreatitis].

25. A young man has diarrhea, loss of weight and flatulence for 3 days. What is the most importan treatment?
    A. Metronidazole

B. Fluconazole
C. Vancomycin
D. Amoxicillin

Ans. The key is A. Metronidazole. [Mainlly colonic anerobic bacterias produce most of the gas and treated with metronidazole].

26. A 64-year-old male was admitted to the medical ward with complaint of diarrhea, abdominal pain and weight loss for few months. Examination: clubbing, perianal skin tags and abdominal tenderness. Colonscopy reveals transmural granulomatous inflammation involving ileocecal junction. He was diagnosed with what?
    A. CD (Crohn's disease)
    B. UC (ulcerative colitis)
    C. Bowel cancer
    D. Gastric cancer
    E. IBD (irritable bowel syndrome)

Ans. The key is A. CD. [Diagnosis is Crohn's disease. Crohn's disease is a type of inflammatory bowel disease (IBD) that may affect any segment of the gastrointestinal tract from the mouth to the anus. Symptoms often include abdominal pain, diarrhea (which may be bloody if inflammation is severe), fever, and weight loss. Clubbing, perianal skin tags and aphthous ulcers can also may be seen. Transmural granulomatous inflammation on colonoscopy is diagnostic of Crohn's disease].

27. A 77-year-old woman suffered diarrhea 4days ago. What would be her blood gas result?
    A. pH =7.2, PaCO2 =8
    B. pH =7.4, PaCO2 =1.5
    C. pH =7.4, PaCO2 =2.6
    D. pH =7.4, PaCO2 =2.8

Ans. The key is B. pH = 7.4, PaCO2 = 1.5 [Diarrhoea causes metabolic acidosis and in response there occurs respiratory compensation [hyperventilation] leading to respiratory alkalosis and low PaCO2 (due to CO2 washout)].

28. A 60-year-old man presents with weight loss and Hb 6. History reveals that he has abdominal pain and diarrhea for the past 6months. What is the most appropriate investigation?
    A. Barium enema
    B. Colonoscopy
    C. Sigmoidoscopy

Ans. The key is B. Colonoscopy. [Likely diagnosis is IBD. So Colonoscopy should be done].

29. A 66-year-old male presents with painful swallowing. What is the most likely diagnosis?
    A. Nesseria meningitides
    B. Cryptococcus neoformans

C. Candida albicans
D. Isospora belli
E. Mycobacterium avium

Ans. The key is C. Candida albicans. [Oropharyngeal and/or esophageal candidiasis].

30. An 80-year-old woman suffering from rheumatoid arthritis presents with severe epigastric pain and vomiting. She also complains of shoulder tip pain. What is the single most discriminatory investigation?
    A. US Abdomen
    B. Sigmoidoscopy
    C. Colonscopy
    D. Barium meal
    E. Upper GI endoscopy
    F. Erect CXR

Ans. The key is F. Erect CXR. [Elderly patient with RA is usually on NSAIDs which may lead to perforated peptic ulcer which presents as severe epigastric pain, vomiting and shoulder tip pain. Diagnosis is made by seeing free gas shadow under the diaphragm on erect CXR].

31. A 2-year-old with atrophy of the buttocks, distended abdomen with frequent offensive smelly stool. Choose the single most likely investigation?
    A. Upper GI endoscopy
    B. Endomyseal/alpha glidin antibody
    C. Sweat test
    D. Colonscopy
    E. Stool culture

Ans. The key is B. Endomyseal/alphagliadin antibody. [Atrophy of buttock due to fat malabsorption and distended abdomen (sometimes with everted umbilicus) with frequent offensive smelly stools are seen in coeliac disease. Hence endomyseal/alpha gliadin antibody should be done].

32. A 29-year-old young man presents with complaints of recurrent attacks of diarrhea. He says his stools contain blood and mucous. Sometimes he has low grade fever. What is the most appropriate investigation for his condition?
    A. Stool culture
    B. Plain abdominal X-ray
    C. Per rectal exam
    D. Barium enema

Ans. The key is D. Barium enema. [Features are suggestive of IBD (inflammatory bowel disease), so barium enema is the most relevant investigation among the given options. Barium contrast dye allows an evaluation of the intestines. This is more commonly used in severe IBD to rule out serious complications like a perforated colon].

33. A 26-year-old young man presents with history of passing loose stools for the past 2months. He says his stools contain blood and mucus and are associated with abdominal pain. He undergoes a colonscopyafter which he was started on treatment. What is the most appropriate treatment for his condition?
    A. Mesalazine
    B. Corticosteroids
    C. Infliximab
    D. Cyclosporine

Ans. The key is A. Mesalazine. [Features and treatment after colonoscopy suggests diagnosis of ulcerative colitis for which initial treatment option is mesalazine].

34. A 28-year-old female presented with complains of difficulties in swallowing liquids only. She also suffers from recurrent chest infection in the past few months. What is the most probable diagnosis?
    A. Foreign body
    B. Plummer vinson syndrome
    C. Achalasia cardia
    D. Peptic stricture
    E. Esophageal carcinoma

Ans. The key is C. Achalasia cardia. [Dysphagia to both solid and liquid or mostly to liquid is common feature of achalasia. In early stages of achalasia there may occur aspiration due to regurgitation during lying down to sleep which may result in recurrent chest infection and cough].

35. A previously healthy 23-year-old presented with a week's history of bloody diarrhea and abdominal pain with cramps and fever. Examination: tenderness in lower abdomen. What is the most appropriate diagnosis?
    A. Celiac disease
    B. Colorectal polyps
    C. UC
    D. Laxative abuse
    E. Gastroenteritis

Ans. The key is E. Gastroenteritis. [A short history (one week) of bloody diarrhea, abdominal pain with cramps, fever and tenderness in lower abdomen is indicative of gastroenteritis].

36. A 45-year-old male with epigastric discomfort has been given triple therapy. He has now returned after 4weeks of epigastric discomfort. What investigation would you do for him?
    A. ECG
    B. H.pylori breath test
    C. Endoscopy and biopsy
    D. US (ultrasonography)

Ans. The key is B. H. pylori breath test.

1. If **H. Pylori test is positive** then **eradicate H. Pylori** and review after 4 weeks.

- If symptoms resolve then no further action required.
- If symptoms persist then do a **urea breath test.**
- If this is positive then continue H. Pylori eradication.
- If this is negative then consider **UGI endoscopy.**

37. A 56-year-old male presents with persistent watery diarrhea. What is the most likely diagnosis?
    A. Treponema pallidum
    B. Nesseria meningitides
    C. Cryptosporidium
    D. Staph aureus
    E. Pseudomonas aeruginosa

Ans. The key is C. Cryptosporidium.[Cryptosporidiosis mainly affects children. It can affect adults as well. It causes a self-limited diarrheal illness in otherwise healthy adults. However, it is also recognized as a cause of prolonged and persistent diarrhea which can result in malnutrition. Cryptosporidiosis can manifest as chronic severe diarrhea in persons with acquired immunodeficiency syndrome (AIDS)].

38. A 26-year-old man is referred for gastroscopy because of a history of several months of dyspepsia. He has routine bloods checked and is found to have a serum calcium level=3.2mmol/l with a venous bicarbonate level of 33mmol/l. Renal and LFT are both normal. CXR is normal. What is the most likely cause of his hypercalcemia?
    A. Melanoma
    B. Metastatic malignancy
    C. Milk alkali syndrome
    D. Primary hyperparathyroidism
    E. Sarcoidosis

Ans. The key is C. Milk alkali syndrome. [In medicine, milk-alkali syndrome is characterized by high blood calcium caused by taking in too much calcium and absorbable alkali; common sources of calcium and alkali are dietary supplements taken to prevent osteoporosis and antacids. If untreated, milk-alkali syndrome may lead to kidney failure or death].

39. A patient admitted due to repeated attacks of pancreatitis presents with dementia and loss of proprioception in the legs. What is the most appropriate treatment?
    A. Thiamine
    B. Pyridoxine
    C. Cobolamin
    D. Lipase
    E. Antibiotics

Ans. The key is C. Cobalamin. [Pancreatic insufficiency can lead to malabsorption and B12 (cobalamin) deficiency. Dementia and diminished vibratory sensation and proprioception in the lower extremities were the most common objective findings of cobalamin deficiency. The damage to the myelin due to cobalamin deficiency results in a condition known as subacute combined degeneration of the spinal cord (SCDSC). This condition affects various parts of the spinal cord, including the dorsal columns, the lateral corticospinal tracts, and the spinocerebellar tracts, resulting in a loss of proprioception, ataxia, the development of peripheral neuropathy, and dementia].

40. A 38-year-old man presented to the emergency department with severe pain in upper abdomen. He has already taken course of triple therapy and now had elective endoscopy 2 days ago. He is in shock. What is the most probable diagnosis?
    A. Ca esophagus
    B. Barret's esophagus
    C. Mediastinitis
    D. Ca stomach

Ans. The key is C. Mediastinitis. [Mediastinitis usually results from an infection. It may occur suddenly (acute), or it may develop slowly and get worse over time (chronic). It most often occurs in person who recently had an upper endoscopy or chest surgery. A person may have a tear in their esophagus that causes mediastinitis].

41. A 36-year-old patient came with diarrhea, bleeding, weight loss and fistula. What is the single most likely diagnosis?
    A. Colorectal ca
    B. Celiac disease
    C. CD (Crohn's disease)
    D. UC (Ulcerative colitis)
    E. IBS (Irritable bowel syndrome)

Ans. The key is C. CD. [Bloody diarrheacan occur in both CD & UC. Also weight loss is common! but fistula formation is a well-recognized complication of CD].

42. A 26-year-old man presented with abdomen distension and pain. His stools have been mucoid and sometimes blood stained. What is the most appropriate investigation?
    A. Stool C&S
    B. Gastroscopy
    C. IgG tissue transglutaminase
    D. Barium meal
    E. Jejunal biopsy

Ans. The key is D. Barium meal. [Probable diagnosis is Crohn's disease].

43. A 28-year-old man with recent onset of dyspepsia after eating spicy food and alcohol consumption. H. pylori fecal antigen was negative. He returns after 1month with similar symptoms despite being given omeprazole 40mg. What is the single best initial investigation?
    A. Hydrogen breath test
    B. Gastroscopy
    C. Barium meal
    D. None

Ans. The key is B. Gastroscopy.

44. A 48-year-old woman is admitted to the emergency department with a productive cough and moderate fever. She often has central chest pain and she regurgitates undigested food most of the time but doesn't suffer from acid reflux. These symptoms have been present for the last 3.5 months which affects her daily food intake. CXR: air-fluid level behind a normal sized heart. What is the single most likely diagnosis?
    A. Pharyngeal pouch
    B. Hiatus hernia
    C. Bulbar palsy
    D. Achalasia
    E. TB

Ans. 1. The key is D. Achalasia. [Usually in hiatus hernia there is acid reflux].

45. A 34-year-old man has an intermittent epigastric pain for 3weeks. It is worse by food but helped by some tablets he obtained from the pharmacy. He had a similar episode 3years ago and his doctor gave him a course of 3 types of tablets at the time. What is the most appropriate next investigation?
    A. Abdomen US
    B. Barium meal
    C. Serum H.Pylori antibodies
    D. C13 urea breath test
    E. Upper GI endoscopy

Ans. The key is D. C13 urea breath test. [Patient was allright for 3yrs after eradication therapy. Now symptoms again may indicate recurrence of H. Pylori infection which can be demonstrated by C13 urea breath test. Serum antibody persist (IgG) for long and not reliable for recheck].

46. A 48-year-old man has intermittent left sided lower abdominal pain and feels generally unwell. He has lost his appetite and has lost weight. Temperature 38.3C and he has BP190/100mmHg. What is the single investigation most likely to lead to diagnosis?
    A. Colonoscopy
    B. Endomysial antibodies
    C. Fasting serum glucose conc
    D. TFT

E. US abdomen

Ans. The key is A. Colonoscopy. [Probable diagnosis is diverticulitis and preferred investigation from given list is colonoscopy. Colonoscopy: It views the colon's interior to see the inflamed, infected pouches. Ultrasound images lack the detail of CT images and cannot evaluate the intestines as well as CT].

47. A 40-year-old woman on chemotherapy for metastatic breast carcinoma now presents with painful swallowing. Examination: she has white plaques on top of friable mucosa in her mouth and more seen on esophagoscopy. What is the most effective treatment for this patient?
    A. Antispasmodic
    B. H2 blocker
    C. Antibiotics
    D. Antifungals
    E. I&D

Ans. The key is D. Antifungal. [Features are consistent with oesophageal candidiasis which is treated with Oral fluconazole (200-400 mg daily) or IV fluconazole for 14-21 days (here iv fluconazole as patient is immunocompromized due to chemotherapy)].

48. A 50-year-old man complains of dysphagia after eating bread. Barium swallow reveals a lower esophageal ring. What is the most appropriate treatment?
    A. Reassurance
    B. Antispasmodics
    C. Dilatation of the LES (lower oesophafeal sphincter)
    D. Endoscopic diverticulectomy
    E. I&D (incision and drainage)

Ans. The key is C. Dilatation of the LES. [Patients with recurrent symptoms from esophageal rings and webs require repeat esophageal dilation. Repeat esophageal dilation is safe and can relieve symptoms in the long term].

49. A patient presents with increasing retrosternal pain and dysphagia for both solids and liquids over 18 months but denies weight loss. Chest is clear. What is the most likely diagnosis?
    A. Achalasia
    B. Pharyngeal carcinoma
    C. Esophageal spasm
    D. Esophageal stricture

Ans. The key is C. Esophageal spasm.

50. A 46-year-old woman presents with sudden episode of abdominal pain which started about 2hours ago. The pain is located in the epigastrium and radiates to her back. She has vomited twice since the onset of attack. The pain is made worse by lying flat on her back and she is more

comfortable sitting up and bending forwards. She was informed of the presence of gallstones in her gall bladder four weeks earlier when she reported pain in the right hypochondrium. The oral temperature is 39C, BP 120/80mmHg and the radial pulse 118/min. There is no jaundice but there is marked tenderness in the epigastrium both on deep and superficial palpations. Which is the most appropriate investigation for the cause of the patient's pain?

A. Plain abdominal X-ray
B. Serum Amylase
C. Serum bilirubin
D. Barium Swallow

Ans. The key is B. Serum amylase. [Epigastric pain radiating to back, worse on lying flat and comfort on bending forward are classic presentation of acute pancreatitis in which serum amylase is increased].

51. An elderly male patient with prior history of hematemesis is having history of long term use of aspirin and other drugs, now presents with severe epigastric pain, dysphagia and vomiting. He wasconnected to vital monitors which were not reassuring. What is the management?

A. Oral antacids
B. IV PPI
C. Oral PPI
D. Endoscopy
E. Analgesia

Ans. The key is D. Endoscopy. [Long term use of annsaid predisposes to peptic ulcers. This may cause considerable bleeding leading to shock].

52. A 14-year-old boy has had recurrent abdominal pains, malaise and weight loss over 6 months. He has had a vague mass in the right iliac fossa. Colonoscopy and biopsy of the caecal area shows transmural inflammation and granulomata. What is the single most appropriate management?

A. Sulphasalazine
B. Appendicectomy
C. Aspirin
D. Enema and laxatives
E. Gluten free diet

Ans. A. Salphasalazine. [Recurrent abdominal pains, weight loss and transmural inflammation and granulomata points towards the diagnosis of Crohn's disease which is treated with sulphasalazine].

53. An 8-year-old has had recurrent abdominal pain for 2 months. His appetite is reduced and he has faecal soiling. There are pitting masses throughout the abdomen. He has a dilated rectum. What is the single most appropriate management?

A. Proton pump inhibitor
B. Pyeloplasty (+/- percutaneous nephrostomy)
C. Enema and laxative
D. Aspirin
E. Triple therapy

Ans. Enema and laxative. [Pitting masses throughout the abdomen with dilated rectum indicates retained faecal matter. Enema and laxative are the treatment].

54. A 12-year-old has recurrent abdominal pain which is worse when he is hungry. The pain is relieved by food or meal. He is tender in the epigastrium. Test has revealed Helicobacter pylori infection. What is the single most appropriate management?
A. Proton pump inhibitor
B. Enema and laxative
C. Aspirin
D. Gluten free diet
E. Metoclopramide

Ans. A. Proton pump inhibitor. [As patient has H. pylori infection the most appropriate management is triple therapy. But as it is not in the given options Proton pump inhibitor is the next answer].

COMPLETED

4. ENDOCRINOLOGY AND DIABETES

1. A 44-year-old woman has lost weight over 12 months. She has also noticed episodes where her heart beats rapidly and strongly. She has a regular pulse rate of 90bpm. Her ECG shows sinus rhythm. What is the most appropriate investigation to be done?
   A. Thyroid antibodies
   B. TFT
   C. ECG
   D. Echocardiogram
   E. Plasma glucose

   Ans. The key is B. TFT. [This is a probable case of thyrotoxicosis. The patient has paroxysmal atrial fibrillation. That is why there is no arrhythmia in between attacks. From the given option TFT is the appropriate test as thyrotoxycosis is a leading cause of paroxysmal atrial fibrillation and thyrotoxicosis is the probable cause of weight loss of this lady].

2. A 45-year-old type1 diabetes mellitus patient had an annual checkup. Ophthalmoscopy showed dot and blot hemorrhage, hard exudate and multiple cotton wool spots. What is the next step in management?
   A. Reassurance and annual screening only
   B. Urgent referral to ophthalmologist
   C. Laser therapy
   D. Non-urgent referral to ophthalmologist
   E. Nothing can be done

Ans. The key is D. Non-urgent referral to ophthalmologist. [Controlling diabetes and maintaining the HbA1c level in the 6-7% range are the goals in the optimal management of diabetes and diabetic retinopathy. If the levels are maintained, then the progression of diabetic retinopathy is reduced substantially. Dot and blot hemorrhage + hard exudate and multiple cotton wool spots indicatethis is pre-proliferative retinopathy. So non-urgent referral to ophthalmologist should be done. If proliferative retinopathy (with neovascularization) urgent referral is indicated].

3. A 38-year-old patient presented with tingling, numbness, paraesthesia, respiratory stridor and involuntary spasm of the upper extremities. She has undergone surgery for thyroid carcinoma a week ago. What is the most likely diagnosis?
   A. Thyroid storm
   B. Hyperparathyroidism
   C. Unilateral recurrent laryngeal nerve injury
   D. External laryngeal nerve injury
   E. Hypocalcemia

Ans. The key is E. Hypocalcemia. [Hypocalcaemia may be due to accidental parathyroid gland removal during thyroidectomy. Tingling, numbness, peraesthesia and involuntary spasm of the upper extremities are well known features of hypocalcemia. Laryngospasm is also a feature in hypocalcaemia which may cause stridor].

4. A 44-year-old patient has sudden onset of breathlessness and stridor few minutes after extubation for thyroidectomy. The patient had longstanding goiter for which he had the surgery. What is the most likely diagnosis?
   A. Thyroid storm
   B. Hematoma
   C. Unilateral recurrent laryngeal nerve injury
   D. External laryngeal nerve injury
   E. Tracheomalacia

Ans. The key is E. Tracheomalacia. [Tracheomalacia is a process characterized by flaccidity of the supporting tracheal cartilage, widening of the posterior membranous wall, and reduced anterior-posterior airway caliber. These factors cause tracheal collapse, especially during times of increased airflow, such as coughing, crying, or feeding.Prolonged pressure over trachea by goiter is a cause of tracheomalacia and symptoms become evident following thryroidectomy].

5. A 54-year-old woman has presented with episodes of abdominal ache, vomiting and postural hypotension. She also has a dark pigmentation of her skin. A diagnosis of Addison's disease was made. What is the most likely electrolyte abnormality expected in this patient?
   A. High Na+, Low K+
   B. Low Na+, High K+
   C. Low Na+, Low K+
   D. High Na+, High K+

E. Low Na+, Normal K+

Ans. The key is B. Low Na+, High K+. [with Addison disease, the sodium, chloride, and carbon dioxide levels are often low, while the potassium level is high].

6. An elderly patient who is known to have DM presents to the hospital with drowsiness, tremors and confusion. What investigation should be done to help in further management?
   A. Blood sugar
   B. ECG
   C. Standing and lying BP
   D. Fasting blood sugar
   E. CT

Ans. The key is A. Blood sugar.

7. A 34-year-old woman is referred to the endocrine clinic with a history of thyrotoxicosis. At her 1st appointment she is found to have a smooth goiter, lid lag and bilateral exophthalmos with puffyeyelids and conjunctival injection. She wants to discuss the treatment of her thyroid problem as she is keen to become pregnant. What is the most likely treatment you would advise?

   A. 18months of carbimazole alone
   B. 18months of PTU (propylthyouracil) alone
   C. A combo of anti-thyroid drug and thyroxine
   D. Radioactive iodine
   E. Thyroidectomy

Ans. The key is B. 18 months of PTU (propylthyouracil) alone. [Other drug option i.e Carbimazole is teratogenic (can cause i. spina bifida ii. cardiovascular malformations iii.hypospadiusetc.) if become pregnant. PTU is on the other hand relatively safe in pregnancy].

8. A 29-year-old woman presents to her GP with a history of weight loss, heat intolerance, poor concentration and palpitations. Which of the following is most likely to be associated with diagnosis of thyroiditis associated with viral infection?
   A. Bilateral exophthalmos
   B. Diffuse, smooth goiter
   C. Reduced uptake on thyroid isotope scan
   D. Positive thyroid peroxidase antibodies
   E. Pretibial myxedema

Ans. The key is C. Reduced uptake on thyroid isotope scan. [The diagnosis is De Quervain's or subacute thyroiditis. Diagnostic criteria: i) Features of hyperthyroidism present. ii) Pain thyroid (not mentioned in given question) iii) Investigations: high esr (60-100) (not mentioned in given question) Reduced uptake of radioactive iodine by the gland].

9. A 67-year-old male presents with polyuria and nocturia. His BMI33, urine culture negative for nitrates. What is the next diagnostic investigation?
   A. PSA
   B. Urea, creat and electrolytes
   C. MSU culture and sensitivity
   D. Acid fast urine test
   E. Blood sugar

   Ans. The key is E. Blood sugar. [Age at presentation and class1 obesity favours the diagnosis of type2 DM. Criteria for diagnosing diabetes mellitus are:

1. a random venous plasma glucose concentration ≥ 11.1 mmol/l or
2. a fasting plasma glucose concentration ≥ 7.0 mmol/l (whole blood ≥ 6.1 mmol/l) or
3. two hour plasma glucose concentration ≥ 11.1 mmol/l two hours after 75g anhydrous glucose in an oral glucose tolerance test (OGTT).
4. An HbA1c of 48mmol/mol (6.5%) or more].

10. A 29-year-old lady came to the ED with complaints of palpitations that have been there for the past 4 days and also feeling warmer than usual. Examination: HR154bpm, irregular rhythm. What is the treatment for her condition?
    A. Amiadarone
    B. Beta blockers
    C. Adenosine
    D. Verapamil
    E. Flecainide

Ans. The key is B. Beta blockers [The probable arrhythymia is AF secondary to thyrotoxicosis. Some of the symptoms of hyperthyroidism (such as tremor and palpitations, which are caused by excess thyroid hormone acting on the cardiac and nervous system) can be improved within a number of hours by beta-blockers. So to rapid control the symptoms of thyrotoxicosis Beta blocker should be used which will improve the arrhythmia as well].

11. A 60-year-old man with a 4years history of thirst, urinary frequency and weight loss presents with a deep painless ulcer on the heel. What is the most appropriate investigation?
    A. Arteriography
    B. Venography
    C. Blood sugar
    D. Biopsy for malignant melanoma
    E. Biopsy for pyoderma

Ans. The key is C. Blood sugar. [The patient probably developed diabetic foot].

12. A patient presents with weight loss of 5kgs despite good appetite. He also complains of palpitations, sweating and diarrhea. He has a lump in front of his neck which moves on swallowing. What is the most appropriate diagnosis?
    A. Lymphoma
    B. TB adenitis
    C. Thyroid Ca
    D. Goiter
    E. Thyroid cyst

Ans. The key is D. Goiter.

13. A 45-year-old man with colon cancer now develops increased thirst, increased frequency in urination and weight loss. His fasting blood glucose9mmol/L. what is the most appropriate management?
    A. Oral hypoglycemic
    B. Insulin long acting
    C. Short acting insulin before meal
    D. IV insulin
    E. Subcutaneous insulin

Ans. The key is A. Oral hypoglycemic. [Increased thirst and increased frequency in urination along with weight loss is suggestive of DM supported by fasting blood glucose of 9 mmol/L. At the age of 45 most likely type of diabetes is NIDDM or type 2 DM which is treated by oral hypoglycemic agents].

14. A 60-year-old diabetic patient on anti-diabetic medication developed diarrhea. What is the most likely cause for his diarrhea?
    A. Autonomic neuropathy
    B. Infective
    C. Celiac disease
    D. Crohns disease

Ans. The key is A. Autonomic neuropathy. [In autonomic neuropathy diarrhea can occur when the nerves that control the small intestine are damaged. The diarrhea occurs most often at night].

15. A 79-year-old woman has been diagnosed with T2DM. Her BMI is 22. RBS are 8 and 10mmol/l. HerBP is 130/80mmHg. Her fasting cholesterol is 5.7mmol/l. She is currently symptom-free but hasmicroalbuminuria. What is the single most appropriate drug management?
    A. ACEi and glibenclamide
    B. ACEi and metformin
    C. Statin and ACEi
    D. Statin and glibenclamide
    E. Statin and metformin

Ans. The key is C. Statin and ACEi. [Diabetic patients are advocated statin irrespective of cholesterol levels and diabetic microalbuminuria is best treated by ACEI. As initially we shall give lifestyle advice in a symptom free patient and no medicine for diabetes, even then we shall start with statin and ACEI].

16. A 46-year-old woman has weight gain, sensitivity to cold, pulse 50bpm, heart is enlarged with murmur. What is the single most likely diagnosis?
    A. Hypothyroidism
    B. Hyperthyroidism
    C. Cushing's syndrome
    D. Addison's disease11
    E. Pheochromocytoma

Ans. The key is A. Hypothyroidism. [The given symptoms like weight gain, cold intolerance, bradycardia and enlargement of heart are well known presentation of hypothyroidism].

17. A 27-year-old woman with anxiety and weight loss has tachycardia, tremor and mild proptosis. What single mechanism accounts for her weight loss?
    A. Deficiency in thyroid hormone
    B. Increased level of calcitonin
    C. Increased metabolic rate
    D. Insulin resistance
    E. Reduced caloric intake

Ans. The key is C. Increased metabolic rate. [The given features are of thyrotoxicosis in which increased metabolism causes loss of patients weight].

18. A 19-year-old man presents with weight loss, increasing thirst and increasing frequency of going to the washroom. His father, grandfather and 2 sisters have been diagnosed with DM. What is the most likely type of DM this patient suffers from?
    A. IDDM
    B. NIDDM
    C. LADA
    D. MODY
    E. DKA

Ans. The key is D. MODY. [Key features of MODY are: Being diagnosed with diabetes under the age of 25 and having a parent with diabetes, with diabetes in two or more generations].

19. A 60-year-old diabetic lady presents with severe peri-anal pain and swelling. What's the cause?
    A. Anal carcinoma
    B. Anal fissure
    C. Hemorrhoid
    D. Anal abscess

Ans. The key is D. Anal abscess. [Diabetes predisposes infection to occur easily].

20. A 60-year-old woman has tiredness. She has noticed that her skin looks permenantly tanned and she describes dizziness on standing up. What is the single most likely electrolyte pattern to be found?
    A. Na+=120mmol/L, K+=5.9mmol/L
    B. Na+=125mmol/L, K+=2.9mmol/L
    C. Na+=140mmol/L, K+=4.5mmol/L
    D. Na+=150mmol/L, K+=3.5mmol/L
    E. Na+=150mmol/L, K+=5.9mmol/L

Ans. The key is A. Na+=120mmol/L, K+=5.9mmol/L. [Tanned skin (hyperpigmentation) and postural hypotension in a tired women points towards Addison's disease where hyponatremia and hyperkalemia is seen].

21. A 43-year-old woman has been feeling lethargic and tired. Her BP is 160/90mmHg. Bloods test: Na+ 140mmol/L, K+ 3.1mmol/L. What is the most likely diagnosis?
    A. Cushing's syndrome
    B. Conn's syndrome
    C. Hyperparathyroidism
    D. Renal disease
    E. Pheochromocytoma

Ans. The key is B. Conn's syndrome. [Here potassium is < 3.5mmol/L, sodium is at its high normal and hypertension is present. Most likely diagnosis is conn's syndrome. Cushing's syndrome is a D/D but it has typical clinical feature which is usually described if the question is for cushing's syndrome. It can also be cushing's syndrome! So if we like to be sure we have to know aldosterone and rennin level. i) Renin low, aldosterone high- Conn's syndrome (primary hyperaldosteronism) ii) Renin low, aldosterone low- Cushing's syndrome iii) Renin high, aldosterone high- Renovascular disease (secondary hyperaldosteronism)].

22. A 68-year-old man with diabetes mellitus and hypertension was noted to have cholesterol level of 3.4mmol/l. He was also noted to have microalbuminuria. What is the best drug to add to his regimen?
    A. ACEi
    B. Statin
    C. Amlodipine
    D. Biguanides

Ans. The key is A. ACEI. [ACEI is renoprotective and prevents progression in albuminuria].

23. A female patient with hypertension and serum K+2.7mmol/l. which hormone would you be looking for?
    A. Aldosterone

B. Cortisol
C. Thyrotoxin
D. Renin
E. Testosterone

Ans. The key is A. Aldosterone. [Hypertension and hypokalemia is seen in hyperaldosteronism. So we should look for aldosterone].

24. A 36-year-old male diagnosed with glioblastoma since last 5months has cerebral edema and is on dexamethasone. He has diarrhea and vomiting for the last 3days. He has been suffering from repeated falls today. What could be the possible cause for his falls?
    A. Adrenal insufficiency
    B. Dehydration
    C. Dexamethasone therapy
    D. Raised ICP

Ans. The key is A. Adrenal insufficiency. [Prolonged dexamethason use suppresses adrenal axis and intercurrent illness can lead to adrenal insufficiency (addisonian crisis) in such cases].

25. A 45-year-old lady complains of expressible galactorrhea, decreased libido and amenorrhea, weight gain and easy fatigue. Her serum prolactin levels are 1100um/l. what is the likely cause of hyperprolactinemia?
    A. Hypothyroidism
    B. Stress
    C. Pregnancy
    D. Prolactin secreting pituitary tumor
    E. PCOS

Ans. The key is A. Hypothyroidism. [It is likely to be hypothyroidism because prolactin level in hypothyroidism may be 30-200ng/ml which means 630-4200 mIU/L. Though weight gain can occur but fatigue is not a feature of prolactinoma unless it is a macroadenoma causing suppression of other pituitary hormone! given prolactin level of 1100 IU/L is definitely from a microadenoma (in macroadenoma prolactin level is > 10,000 MU/L) which does not cause fatigue. So the case most likely seems to be hypothyroidism].

26. A young girl who is known to have T1DM (type 1 diabetes mellitus) presented with drowsiness and deep breathing. Her sugar level 20. Her BP 120/80mmHg and her mucous membranes are dry. What would be the next appropriate step?
    A. Serum urea
    B. Blood culture
    C. CT
    D. HbA1c
    E. ABG (arterial blood gas)

Ans. The key is E ABG. [Likely diagnosis is DKA where ABG is done to demonstrate acidosis. While definitions vary, mild DKA can be categorized by a pH level of 7.25-7.3 and a serum bicarbonate level between 15-18 mEq/L; moderate DKA can be categorized by a pH between 7.0-7.24 and a serum bicarbonate level of 10 to less than 15 mEq/L; and severe DKA has a pH less than 7.0 and bicarbonate less than 10 mEq/L. In mild DKA, anion gap is greater than 10 and in moderate or severe DKA the anion gap is greater than 12. These figures differentiate DKA from HHS (hyperosmolar hyperglycemic state) where blood glucose is greater than 600 mg/dL but pH is greater than 7.3 and serum bicarbonate greater than 15 mEq/L.].

27. A known DM was admitted with sudden LOC (loss of consciousness). What is the initial investigation?
    A. CT scan
    B. RBS
    C. MRI
    D. ECG
    E. ABG

Ans. The key is B. RBS. [In unconsciousness in diabetics, first glycemic change should be excluded by doing RBS].

28. A patient was admitted with erectile dysfunction, reduced facial hair and galactorrhea. What is the most probable diagnosis?
    A. Hyperprolactinemia
    B. Cushing's syndrome
    C. Pheochromocytoma
    D. Hyperthyroidism
    E. Hypoparathyroidism

Ans. The key is A. Hyperprolactinemia. [Erectile dysfunction, reduced facial hair and galactorrhea are common features of hyperprolactinemia].

29. A 32-year-old man has been repeatedly admitted to hospital for what was described as anxiety or panic attacks and palpitations. On occasions he is found to be tremulous and hypertensive. A persistent weight loss is noted. What is the most probable diagnosis?
    A. Hyperthyroidism
    B. Panic attacks
    C. Pheochromocytoma
    D. Cushing's disease
    E. GAD (generalized anxiety disorder)

Ans. The key is C. Pheochromocytoma. [There is no heat intolerance which goes against hyperthyroidism and panic attack and hypertension favours the diagnosis of pheochromocytoma. Weight loss is seen in phaeochromocytoma also. Catecholamine overproduction in pheochromocytoma affects basal metabolism, resulting in weight loss despite normal food intake].

30. A 35-year-old man withtype1 diabetes mellitus is dehydrated with BP of 90/50mmHg. What is the single mostappropriate initial investigation?
    A. ABG
    B. CBC
    C. HbA1c
    D. LFT
    E. Serum Urea

Ans. The key is A. ABG. [Dehydration with low BP points towards probable DKA (diabetic keto-acidosis). Diabetic ketoacidosis is typically characterized by hyperglycemia over 250 mg/dL, a bicarbonate level less than 18 mEq/L, and a pH less than 7.30, with ketonemia and ketonuria.In patients with DKA, arterial blood gases (ABGs) frequently show typical manifestations of metabolic acidosis, low bicarbonate, and low pH (less than 7.3)].

31. In OGTT what is the glucose venous plasma level 2h after glucose intake which indicates impaired glucose tolerance?
    A. >11.1mmol/l
    B. Between 7.8-11.0mmol/l
    C. Between 8.0-10.9mmol/l
    D. Between 10.0-11.0mmol/l
    E. Between 7.1-11.0mmol/l

Ans. The key is B. Between 7.8-11.0mmol/l.

32. A 62-year-old man diagnosed with type 2 diabetes mellitus with BMI 33. Lifestyle modifications have failed to control blood sugar. Laboratory investigations: urea 3.6mmol/l, creatinine 89mmol/l. what is the next appropriate management?
    A. Biguanide
    B. Sulfonylurea
    C. Insulin
    D. Glitazone
    E. Sulfonylurea receptor binder

Ans. The key is A. Biguanide. [Patient is obese type 2 diabetic. His BMI is >25 (33 here). So biguanide is the treatment of choice].

33. A 68-year-oldwoman diagnosed with Type2 DM and BMI 33. Laboratory investigations: GFR 29, urea 13, creatinine 390mmol/L. what is the next appropriate management?
    A. Biguanide
    B. Sulfonylurea
    C. Insulin
    D. Glitazone
    E. Sulfonylurea receptor binder

Ans. The key is C. insulin. [Insulin is devoid of significant side effect than Glitazones (like fluid retention). In renal failure there is reduced GFR and some fluid retention. It is not desirable that glitazone to cause more fluid retention by causing oedema. The oral agents that are thought to be relatively safe in patients with nondialysis CKD include short-acting sulfonylureas (eg, glipizide) and repaglinide. If an oral agent is used, the short-acting sulfonylurea, glipizide, is the preferred agent among nondialysis CKD patients who have an estimated glomerular filtration rate (eGFR) <30 mL/min/1.73. The dose for glipizide is 2.5 to 10 mg/day. Glyburide and other long-acting sulfonylureas are generally not recommended in any CKD patient with type 2diabetes, because of the risk of hypoglycemia. Some clinicians recommend the use of the meglitinide repaglinide (starting with a dose of 0.5 mg) for nondialysis CKD patients since these agents are not renally cleared. Nondialysis CKD patients with type 2 diabetes may be treated with an oral agent, although many patients end up on insulin therapy because it is more effective. So it may be that we can go for insulin as the answer!!].

34. An 80-year-olddiabetic lady presents with redness and swelling over her right foot. It is tender to touch, warm and glossy. What are the complications this patient might develop?
    A. Meningitis
    B. Sepsis
    C. Ulcer
    D. Gangrene

Ans. The key is B. Sepsis. [All options are possible. Sepsis and gangrene are more common].

35. A 44-year-old obese patient with findings: FBS 6mmol/l, OGTT 10mmol/l, 2 hours after 75 g of glucose. What is the most likely diagnosis?
    A. Impaired glucose tolerance
    B. Diabetes insipidus
    C. T1DM
    D. T2DM
    E. MODY

Ans. The key is A. Impaired glucose tolerance. [The World Health Organization (WHO) criteria for impaired glucose tolerance (IGT) are an FPG of less than 126 mg/dL (7 mmol/L), if measured, and a venous plasma glucose of 140 mg/dL to just below 200 mg/dL (≥7.8 to <11.1mmol/L) 2 hours after a 75-g glucose load with one intervening plasma glucose value at or above 200 mg/dL].

36. A 29-year-old woman presents with lid lag, lid retraction and diplopia. What is the most appropriate next step?
    A. TFT
    B. Tensilon test
    C. Fundoscopy
    D. Autoantibodies
    E. EMG

Ans. The key is A. TFT. [Features are suggestive of Grave's disease hence TFT].

37. A 72-year-old presents with polyuria and polydipsia. The fasting blood sugar is 8 and 10mmol/l. BP130/80mmHg and the level of cholesterol 5.7mmol/l. There is microalbuminuria. What is the single most appropriate next management?
    A. ACEi and sulfonylurea
    B. Statin and biguanide
    C. Statin and glitazone
    D. Insulin and ACEi
    E. Statin and ACEi

Ans. The key is E. Statin and ACEI. [We shall first consider life style modification and if fail then switch to oral anti diabetics].

38. A-49-year old woman presents to the OPD. Her oral glucose test after 2hours of glucose intake vs plasma level in 2 different tests are 6mmol/l and 10mmol/l. This situation can be categorized as:
    A. Impaired glucose tolerance
    B. Impaired fasting glucose
    C. T1DM
    D. T2DM
    E. Metabolic syndrome

Ans. The key is A. Impaired glucose tolerance. [The WHO defines someone as having pre-diabetes if they have:

A fasting blood glucose of less than 7 mmol/L; AND

A blood glucose of 7.8 mmol/L or more but less than 11.1mmol/L after a two-hour oral glucose tolerance test].

39. A-54-year old male patient of diabetes mellitus with BMI 33 who has been treated using dietary control up till now presents to his GP with a fasting blood sugar of 14mmol/l and creatinine of 90 micro-mol/l. Urine shows glycosuria. No other abnormalities are found. What is the best next step in management?
    A. Biguanide
    B. Sulfonylurea
    C. Insulin
    D. Sugar free diet
    E. ACEi

Ans. The key is A. Biguanide. [Patient is obese type2 diabetic with normal renal function for whom biguanide is the treatment of choice].

40. A diabetic has been prescribed a long acting hypoglycemic in the morning and short acting in the evening. He takes a regular lunch, but has been having hypoglycemic attacks at around 4pm each day. What is the most appropriate intervention?
    A. Recommend a heavier lunch
    B. Review morning drug
    C. Review evening drug
    D. Review both drug
    E. Reassure

Ans. The key is B. Review morning drug. [As there is hypoglycemic attacks at evening, morning dose needs to be adjusted].

41. A 34-year-old woman presents with truncal obesity, easy bruising, hyperglycemia, high BP and depression. Which of the following investigation will be most helpful in localizing the cause for Cushing's syndrome?
    A. Serum cortisol
    B. 24h urinary cortisol
    C. Low dose dexamethasone suppression test
    D. High dose dexamethasone suppression test
    E. Overnight dexamethasone suppression test

Ans. The key is D. High dose dexamethasone suppression test. [High dose dexamethasone suppression test can identify whether pituitary adenoma or ectopic ACTH producing tumour. Suppression is absent in patients with Cushing syndrome due to ectopic ACTH secretion or adrenal abnormalities. Suppression is present in patients with Cushing disease].

42. A 38-year-old female presents with difficult in looking upward and on examination she was found to have lid lag as well. She also complains of her heart racing at times. Which test will help in diagnosis?
    A. Tensilon test
    B. 24h ECG
    C. TFT
    D. Schimmer test
    E. Young Helmholtz ophthalmoscopy

Ans. The key is C. TFT. [Difficulty in looking upwards is due to superior rectus or inferior oblique palsy and palsy of one or more extra-ocular muscle can occur in thyrotoxicosis which is known as Ballett's sign. There is lid lag in thyrotoxicosis and racing heart is due to paroxysmal atrial fibrillation caused by hyperthyroidism].

43. A patient was admitted with abdominal pain, diarrhea, pigmented palmar creases and buccal mucosa. What is the most probable diagnosis?
    A. Addison's disease
    B. Cushing syndrome

C. Pheochromocytoma
D. Hyperthyroidism
E. Hypoparathyroidism

Ans. The key is A. Addison's disease. [Addison's disease, also known as primary adrenal insufficiency and hypocortisolism, is a long-term endocrine disorder in which the adrenal glands do not produce enough steroid hormones. Symptoms generally come on slowly and may include abdominal pain, weakness, and weight loss, diarrhea, pigmented palmar creases and buccal mucosa].

44. A 45−year-old man presented to his GP with vague symptoms of headache, proximal muscle weakness and nocturia. Test results show him to be severely hypertensive (230/130mmHg) and hypokalemic. What is the most probable diagnosis?
    A. Addison's disease
    B. Conn's disease
    C. Familial hyperaldosteronism
    D. Cushing's disease
    E. Cushing's syndrome

Ans. The key is B. Conn's disease. [High BP is often the only presentation of Conn's syndrome. Loss of K+ in urine leads to hypokalemia which in turn causes muscle weakness and polyuria particularly nocturia].

45. A 35-year-old man with type 1 DM is dehydrated with BP 90/50mmHg. What is the single most appropriate initial investigation?
    A. ABG
    B. CBC
    C. HbA1c
    D. LFT
    E. BUE

Ans. The key is A. ABG. [The likely diagnosis is DKA. Among the given options ABG is the most appropriate investigationto demonstrate acidosis].

46. A patient presents with a lid lag, bulging eyes, opthalmoplegia and thyroid bruit. What investigation will you do?
    A. TFT (thyroid function test)
    B. Eye sight
    C. Tensilon test
    D. US (ultrasound)
    E. FNAC (fine needle aspiration cytology)

Ans. The key is TFT. [Diagnosis is Grave's disease. TFT should be done. Why not FNAC? Thyrotoxicosis is benign and not malignant].

47. An 18-year-old lady in her 30th week of pregnancy is brought to the hospital in an altered sensorium. She is taking slow, shallow breaths and her breath has a fruity smell. An ABG: pH 7.20, urine ketones: +ve. What is the most probable diagnosis?
    A. HONK
    B. DKA
    C. HELLP syndrome
    D. PIH
    E. GDM

Ans. The key is B. DKA. [Shallow breath and fruity smell with acidosis in ABG and positive ketone body in urine suggests the diagnosis of DKA].

48. A patient presents with skin pigmentation, diarrhea, vomiting, abdominal pain and postural hypotension. What electrolyte abnormality is likely to occur?
    A. Na+130, K+6.5
    B. Na+130, K+2.5
    C. Na+13, K+6.0
    D. Na+140, K+8
    E. Na+130, K+1.5

Ans. The key is A. Na+130, K+6.5. [Addison disease is adrenocortical insufficiency due to the destruction or dysfunction of the entire adrenal cortex. It affects glucocorticoid and mineralocorticoid function. The onset of disease usually occurs when 90% or more of both adrenal cortices are dysfunctional or destroyed. Hyperpigmentation of the skin and mucous membranes often precedes all other symptoms by months to years. Diarrhea, vomiting, abdominal pain and postural hypotension are well known features of acute addisons disease. In Addison's disease there is low Na+, low Cl-, low CO2 and raised K+].

49. A 56-year-old male who presented with epilepsy like symptoms has been diagnosed with an intracranial space occupying lesion. He now complains of thirst and mild dehydration. His blood glucose is also increased. What is the single most appropriate immediate treatment?
    A. Insulin
    B. IV fluids
    C. Stop dexamethasone
    D. Stop sodium valproate and change to another anti-epileptic

Ans. The key is B. IV fluids. [This is stress induced hyperglycemia and not always needs insulin. As dehydration can cause worsening of hyperglycemia our immediate treatment is IV fluid. Later evaluation will be made whether insulin should be given or not].

50. A 68-year-old lady with type 2 DM. Which drug should be prescribed?
    A. Biguanides
    B. Sulphonyl urea
    C. Insulin

D. Lifestyle modifications

Ans. The key is A. Biguanide. [This is an incomplete question and BMI is needed to decide whether biguanide or sulphonylurea be prescribed. If BMI is >25 biguanides should be prescribed and if BMI is <25 sulphonylurea is prescribed].

51. A man with diabetes mellitus comes to the emergency department after he collapsed at home. His GCS is 10. What should be the next initial investigation for this man?
    A. Capillary blood sugar
    B. MRI head
    C. CT head
    D. Serum electrolytes

Ans. The key is A. Capillary blood sugar. [It may be either hypoglycemic or hyperglycemic coma which can be detected by checking capillary blood sugar].

52. A 60-year-old diabetes mellitus patient presented with easy fatigability, weakness and numbness of hands and swollen feet. Examination: pedal edema, sensory neuropathy and palpable liver and spleen. Urine: proteinuria. Ultrasound abdomen: enlarged kidney. Renal biopsy: amorphous homogenous substance that stained green with congo-red. What is the diagnosis?
    A. DM retinopathy
    B. Sarcoidosis
    C. Wilms tumor
    D. Amyloidosis
    E. Glycogen storage disease

Ans. The key is D. Amyloidosis [Islet amyloid is a characteristic pathological finding in patients with type 2 diabetes mellitus, being present in more than 90 percent.Amyloidosis is a common cause of organomegaly. Also in diabetic nephropathy kidneys may be enlarged].

53. A patient was admitted with increased frequency of passing urine, increased thirst, weakness and muscle cramps. What is the most probable diagnosis?
    A. Conn’s syndrome
    B. Cushing’s syndrome
    C. Pheochromocytoma
    D. Hyperthyroidism
    E. Hypoparathyroidism

Ans. The key is A. Conn’s syndrome. [There is hypokalemia in Conn’s syndrome. Increased frequency of passing urine and increased thirst are from nephrogenic DI resulted from hypokalemia and hypokalemia also causes weakness and muscle cramps].

54. A 46-year-old woman has gained weight. She has sensitivity to cold. Her pulse is regular at 50bpm and heart is enlarged. What is the single most likely underlying mechanism for this condition

A. Autoimmune

B. Degenerative

C. Congenital

D. Infective

E. Nutritional

Ans. The key is A. Autoimmune. [The most common cause of hypothyroidism in UK is autoimmune hypothyroidism. In developing countries it is often nutritional (iodine deficiency).The diagnosis is autoimmune hypothyroidism (in hypothyroidism heart is often gets enlarged)].

55.A 15-year-old man presents with bitemporal hemianopia and spade-like hands. What is the definite test to confirm the diagnosis?

A. Early morning growth hormone

B. Insulin tolerance test

C. OGTT with growth hormone measurements

D. Random insulin-like growth factor (IGF-1)

E. Short ACTH test

Ans. The key is C. OGTT with growth hormone measurements. [The bitemporal hemianopia and spade-like hands point towards acromegaly. The best initial test is insulin like growth factors but the definitive test that confirms the diagnosis is OGTT with serial growth hormone measurements].

56. You suspect Cushing's disease in a 50-year-old woman who has attended clinic with glycosuria, hypertension and a suggestive body habitus. Initial investigations point you towards a diagnosis of Cushing's disease. Which of the following findings would be against this diagnosis?

A. A normal 8am cortisol

B. Failure to suppress morning cortisol with dexamethasone

C. HTN requiring >2 antihypertensive agents

D. Impaired growth hormone response to glucose loading

E. Unilateral adrenal enlargement

Ans. The key is E. Unilateral adrenal enlargement.

Cushing's disease:

- Bilateral adrenal hyperplasia from an ACTH secreting pituitary adenoma.
  Peak age 30-50 years, male female ratio 1:1
- A low dose dexamethasone test leads to no change in plasma cortisol but 8 mg may be enough.

57. A 23-year-old man with type 1 diabetes presents with 48 hours of increasing confusion and breathlessness. His chest is clear and his blood glucose concentration is 28 mmol/L. What is the single most appropriate investigation?
A. Chest X-ray
B. Arterial blood gas
C. Electrocardiogram (ECG)
D. Haemoglobn
E. Magnetic resonance imaging (MRI) scan of the chest.

Ans. B. Arterial blood gases. [Probabe DKA. In patients with DKA, arterial blood gases (ABGs) frequently show typical manifestations of metabolic acidosis, low bicarbonate, and low pH (less than 7.3)].

58. A 35-year-old man is being investigated for infertility. Which of the following tests would prove that he has complete azoospermia?
A. Prolactin
B. Oestrogen level
C. Testosterone
D. Gonadotrophine
E. Follicle stimulating hormone

Ans. The key is C. Testosterone. [Low testosterone may lead to azoospermia. But surprisingly testosterone replacement can improve libido but not help azoospermia as it causes follicle stimulating hormone suppression. So testosterone rise should be done by natural means to improve fertility!]

COMPLETED

5. NEUROLOGY

1. A 67-year-old man after a stroke, presents with left sided ptosis and constricted pupil. He also has loss of pain and temp on the right side of his body and left side of his face. Which part of the brain is most likely affected?
   A. Frontal cortex
   B. Cerebellum
   C. Pons

D. Medulla
E. Parietal cortex

Ans. The key is D. Medulla. [The name of the condition is “Lateral medullary syndrome”. Lateral medullary syndrome is a neurological disorder causing a range of symptoms due to ischemia in the lateral part of the medulla oblongata in the brainstem. The ischemia is a result of a blockage most commonly in the vertebral artery or the posterior inferior cerebellar artery. This syndrome is characterized by sensory deficits that affect the trunk and extremities contralaterally and sensory deficits of the face and cranial nerves ipsilaterally. Specifically a loss of pain and temperature sensation if the lateral spinothalamic tract is involved. The cross body finding is the chief symptom from which a diagnosis can be made (in short ipsilateral Horner syndrome and contralateral loss of pain and temperature sense). The patient may have ataxia (cerebellar involvement), dysphagia (nucleus ambigusthat involve vagus and glossopharyngeal nerve dysfunction) and slurred speech. Vestibular nuclei dysfunction may cause vomiting, vertigo and nystagmus].

2. An 18-year-old female has peri-orbital blisters. Some of them are crusted, others secreting pinkish fluid. What is the most likely diagnosis?
   A. Shingles
   B. Chicken pox
   C. Varicella
   D. Rubella
   E. Measles

Ans. The key is A. Shingles. [Herpes zoster ophthalmicus occurs when the varicella-zoster virus is reactivated in the ophthalmic division of the trigeminal nerve. Herpes zoster is a common infection caused by the human herpesvirus 3, the same virus that causes varicella (i.e., chickenpox)].

3. A 22-year-old man has a reduced conscious level and a fixed dilated pupil after being involved in a MVC (motor vehical collision). Choose the single most appropriate option?
   A. Facial nerve
   B. Oculomotor nerve
   C. Olfactory nerve
   D. Optic nerve
   E. Trigeminal nerve

Ans. The key is B. Oculomotor nerve. [3rd nerve damage can cause fixed dilated pupil].

4. A-7-year old child is brought to the emergency department with a 1 day history of being listless. On examination, the child is drowsy with an extensive non-blanching rash. What advice would you give the parents?
   A. All family members need antibiotic therapy
   B. Only the mother should be given rifampicin prophylaxis
   C. All family members need isolation
   D. All family members should be given rifampicin prophylaxis

Ans. The key is D. All family members should be given rifampicin prophylaxis. [Diagnosis is meningococcal meningitis. All contacts need rifampicin prophylaxis].

5. A patient was lying down on the operating table in a position with his arms hanging down for 3 hours. Soon after he woke up, he complains of numbness and weakness in that hand and has limited wrist movement/wrist drop and sensory loss over dorsum of that hand, weakness of extension of the fingers and loss of sensation at the web of the thumb. What structure is likely to be damaged?
   A. Radial nerve
   B. Median nerve
   C. Ulnar nerve
   D. Axillary nerve
   E. Suprascapular nerve

Ans. The key is A. Radial nerve. [Here arm hanging down compressing the radial nerve at the spiral groove is the cause of given scenario].

6. A 65-year-old woman presented with transient arm and leg weakness as well as a sudden loss of vision in the left eye. Her symptoms resolved within the next couple of hours. What is the most appropriate next investigation?
   A. CT brain
   B. Echo
   C. Doppler USG
   D. Arteriography
   E. 24hour ECG

Ans. The key is C. Dopplar USG. [Diagnosis is TIA. Probable cause is carotid narrowing from atherosclerosis].

7. A man complains of loss of sensation in his little and ring finger. Which nerve is most likely to be involved?
   A. Median nerve
   B. Ulnar nerve
   C. Radial nerve
   D. Long thoracic nerve
   E. Axillary nerve

Ans. The key is B. Ulner nerve. [Compression of ulner nerve at the elbow, known as cubital tunnel syndrome, causes numbness in the 5th (pinky) finger, along the half (lengthwise) of the 4th (ring) finger closest to the 5th finger, and the back half of the hand over the 5th finger].

8. A young man complains of double vision on seeing to the right. Which nerve is most likely to be involved?
   A. Left abducens

B. Right abducens
C. Left trochlear
D. Right trochlear
E. Right oculomotor

Ans. The key is B. Right abducens. [Diplopia on seeing to right indicates right lateral rectus palsy which is supplied by right abducent nerve].

9. A patient with cerebral metastasis has polyuria and polydipsia. Which part of the brain is affected?
   A. Cerebral cortex
   B. Cerebellum
   C. Diencephalon
   D. Pons
   E. Medulla

Ans. The key is C. Diencephalon. [Diencephalon is the caudal (posterior) part of the forebrain, containing the epithalamus, thalamus, hypothalamus, and ventral thalamus and the third ventricle. Hypothalamus produce ADH and hens lesion of diencephalon (hypothalsamus) may produce cranial diabetes insipidus].

10. A-45-year old female complains of pain in the inner side of her right thigh. She was diagnosed with benign ovarian mass on the right. Which nerve is responsible for this pain?
    A. Femoral nerve
    B. Obturator nerve
    C. Iliohypogastric nerve
    D. Ovarian branch of splanchic nerve
    E. Pudendal nerve

Ans. The key is B. Obturator nerve. [The Obturator nerve is responsible for the sensory innervation of the skin of the medial aspect of the thigh].

11. A 79-year-old stumbled and sustained a minor head injury 2 weeks ago. He has become increasingly confused, drowsy and unsteady. He has a GCS of 13. He takes warfarin for Atrial fibrillation. What is the most likely diagnosis?
    A. Extradural hemorrhage
    B. Cerebellar hemorrhage
    C. Epidural hemorrhage
    D. Subdural hemorrhage
    E. Subarachnoid hemorrhage

Ans. 1. The key is D. Subdural hematoma. [In elderly head injury usually leads to subdural hematoma even if head injury is minor or trivial and extradural hematoma in elderly is extremely uncommon even in more severe head injury. Warfarin is also a risk factor for subdural hematoma from a minor trauma.

Management: 1st line: Evacuation by barr hole craniostomy. 2nd line: Craniotomy if the clot is organized. Up to 3 weeks burrhole may be possible but longer than this clot is mostly organized and Flap craniotomy is usually required].

12. A 22-year-old lady has been unwell for some time. She came to the hospital with complaints of fever and painful vesicles in her left ear. What is the most probable diagnosis?
    A. Acne
    B. Herpes zoster
    C. Chicken pox
    D. Insect bite
    E. Cellulitis

Ans. The key is B. Herpes Zoster. [This is a case of Herpes zoster oticus and if facial nerve is also involved then it is called Ramsay Hunt syndrome].

13. A 62-year-old woman complains of unsteadiness when walking. On examination she has pyramidal weakness of her left lower limb and reduced pain and temp sensation on right leg and right side of trunk up to the umbilicus. Joint position sense is impaired at her left great toe but is normal elsewhere. She has a definite left extensor plantar response and the right plantar response is equivocal. Where is the lesion?
    A. Left cervical cord
    B. Midline mid-thoracic cord
    C. Right mid-thoracic cord
    D. Left mid-thoracic cord
    E. Left lumbo-sacral plexus

Ans. The key is D. Left mid thoracic cord. [In Brown-Sequard syndrome paralysis and loss of proprioception on the same (or ipsilateral) side as the injury or lesion, and loss of pain and temperature sensation on the opposite (or contralateral) side as the lesion].

14. A woman has electric pains in her face that start with the jaw and move upwards. Her corneal reflexes are normal. What is the most likely diagnosis?
    A. Atypical face pain
    B. Trigeminal neuralgia
    C. Tempero-mandibular joint dysfunction
    D. GCA
    E. Herpes zoster

Ans. The key is b. Trigeminal neuralgia. [Electric pains in her face that starts with the jaw and moves upwards this description indicates neurological pain of trigeminal nerve. Patients with classical trigeminal neuralgia have a normal neurologic examination. Sensory abnormalities in the trigeminal area, loss of corneal reflex, or evidence of any weakness in the facial muscles should prompt the physician to consider symptomatic trigeminal neuralgia or another cause of the patient's symptoms].

15. A 56-year-old man comes with history of right sided weakness & left sided visual loss. Where is theocclusion?
    A. Anterior meningeal artery
    B. Middle meningeal artery
    C. Middle cerebral artery
    D. Carotid artery
    E. Anterior cerebral artery
    F. Anterior communicating artery

Ans. The key is D. Carotid artery. [Carotid artery divides to internal and external carotid of which internal continues as middle cerebral ultimately. But just before it becomes middle cerebral internal carotid gives rise to ophthalmic branch. So middle cerebral occlusion may give partial visual loss but not complete mono-ocular blindness. For complete mono-ocular blindness occlusion should be proximal to ophthalmic artery i.e. either in internal carotid or more proximally to carotid artery].

16. A 24-year-old college student presents with nausea, vomiting, headache, neck stiffness and a fever of 38.4C. What is the most appropriate empirical antibiotic to be started?
    A. Ceftriaxone
    B. Penicillin
    C. Gentamicin
    D. Tazobactam
    E. Meropenem

Ans. The key is A. Ceftriaxone. [Empiric therapy should begin as soon as bacterial meningitis is thought likely. Widespread resistance to penicillins and sulfonamides has forced a consideration of new agents for the treatment of bacterial meningitis, such as cephalosporins, vancomycin (Vancocin), rifampin (Rifadin), carbapenems, and fluoroquinolones.In patients with meningitis caused by penicillin- or cephalosporin-resistant strains vancomycin may be used in combination with a third-generation cephalosporin but should not be used alone. Rifampin should be used only in combination with other antimicrobial agents as resistance develops rapidly when it is used alone. Though meropenem can be an alternative to cefotaxime and ceftriaxone but due to its seizure activity it is not preferred as 1st line. Fluoroquinolones are also not used as 1st line].

17. A 56-year-old lady has developed severe right sided headache which worsens whenever she comes to bright light since the last 4 days. She feels nauseated, but doesn't vomit. What is the most likely diagnosis?
    A. SAH (sub arachnoid hemorrhage)
    B. Brain tumor
    C. Migraine
    D. Cluster headache
    E. Subdural headache

Ans. The key is C. Migraine. [This is migraine with aura. Criteria of migraine without aura: ≥5 headaches lasting 4-72 hours + nausea/vomiting (or photo/phono-phobia) + any 2 of: i) unilateral ii) pulsating iii) worsen by routine activity].

18. A 33-year-old male involved in a street fight presents with bruises and deformity in the upper part of his leg. X-ray shows fracture of the neck of fibula. What is the single most associated nerve injury?
    A. Sciatic nerve
    D. Gluteal nerve
    C. Musculocutaneous nerve
    D. Lateral peroneal nerve
    E. Tibial nerve
    F. Femoral nerve

Ans. The key is D. Lateral peroneal nerve. [Lateral peroneal nerve is other name of superficial peroneal nerve].

19. A 37-year-old man slipped while he was walking home and fell on his out stretched hand. He complains of pain in the right arm. X-ray showed fracture of the head of radius. What is the single most associated nerve injury?
    A. Radial nerve
    B. Musculocutaneous nerve
    C. Median nerve
    D. Ulnar nerve

Ans. The key is A. Radial nerve.

20. A 53-year-old woman presented with pain in the eye, blurry vision and clumsiness for 3 months. She has a history of difficulty in swallowing and weakness in her right upper limb 2years ago. What is the investigation of choice?
    A. CSF analysis
    B. EEG
    C. EMG
    D. MRI brain
    E. Visual evoked response test

Ans. The key is D. MRI brain. [Diagnosis is multiple sclerosis for which gadolinium enhanced T2 weighted MRI is the investigation of choice].

21. A 44-year-old patient comes with right hemiparesis. Examination: left sided ptosis and left dilated pupil. Where is the lesion?
    A. Cerebral infarct
    B. Cerebellar infarct
    C. Medulla oblongata

D. Pons
E. Midbrain

Ans. The key is E. Midbrain. [The diagnosis is Weber syndrome which is characterized by presence of ipsilateral oculomotor nerve palsy and contralateral hemiparesis or hemiplegia].

22. A 30-year-old woman has brief episodes of severe shooting pain in the rectum. Rectal examination and flexible sigmoidoscopy are normal. What is the most probable diagnosis?
    A. Anal hematoma
    B. Anal fissure
    C. Rectal carcinoma
    D. Proctalgia fugax
    E. Piles

Ans. is D. Proctagia fugax [Proctalgia fugax is a functional anorectal disorder characterized by severe, intermittent episodes of rectal pain that are self-limited. The diagnosis of proctalgia fugax requires exclusion of other causes of rectal or anal pain. Normal rectal examination and flexible sigmoidoscopy excludes other options].

23. A 23-year-old lady presents with headache. Examination: photophobia and generalized rash that doesn't blanch on pressure. What must be done immediately?
    A. IV benzylpenicillin
    B. Isolate patient
    C. Gown and mask
    D. Blood culture

Ans. The key is A. IV benzylpenicillin. [Likely diagnosis is meningococcal meningitis].

24. A young girl complains of episodic headaches preceded by fortification spectra. Each episode last for 2-3 days. During headache patient prefers quiet, dark room. What is the treatment of choice for acute stage?
    A. Paracetamol
    B. Aspirin
    C. Sumatriptan
    D. Gabapentin
    E. Cafergot

Ans. The key is A. Paracetamol. [Aspirin may cause reye's syndrome in young girl. This is a case of pediatric migraine (pediatric migraine up to 17yrs). In pediatric migraine paracetamol is 1st line treatment (also ibuprofen). In pediatric migraine GP cannot prescribe triptan. (only specialist can prescribe triptan in children). Ergot alkaloid should be avoided in children. Ref: patient.info].

25. A-33-year old man is hit by a car. He loses consciousness but is found to be fine by the paramedics. When awaiting doctors review in the ED he suddenly becomes comatose. What is the most likely diagnosis?
    A. SAH
    B. Subdural hemorrhage
    C. Intracerebral hemorrhage
    D. Extradural hemorrhage

Ans. The key is D. Extradural haemorrhage. [Age 33 (younger age), considerable head trauma, and lucid interval (present in both extradural and subdural but more prominent in extradural hemorrhage.) are the points in favour of extradural hemorrhage].

26. A 77-year-old male presents with history of enuresis and change in behavior. Examination: waddling gait. What is the most likely diagnosis?
    A. Subdural hemorrhage
    B. Brain tumor
    C. Normal pressure hydrocephalus
    D. Psychotic depression

Ans. The key is C. Normal pressure hydrocephalus. [Normal pressure hydrocephalus (NPH) is an abnormal buildup of cerebrospinal fluid (CSF) in the brain's ventricles, or cavities. It occurs if the normal flow of CSF throughout the brain and spinal cord is blocked in some way. This causes the ventricles to enlarge, putting pressure on the brain. Age (usually occurs in 60s or 70s), loss of bladder control (enuresis), waddling gait and behavior change and dementia are all features of normal pressure hydrocephalus].

27. A 17-year-old girl had an episode of seizure. Contraction of muscles started from around the interphalangeal joints, which spread to the muscles of wrist and elbow. Choose possible type of seizure?
    A. Grand mal
    B. Tonic clonic
    C. Myoclonic
    D. Absent

Ans. The key is C. Myoclonic. [Myoclonus can be described as brief jerks of the body; it can involve any part of the body, but it is mostly seen in limbs or facial muscles. The jerks are usually involuntary and can lead to falls. EEG is used to read brain wave activity. When myoclonic jerks are occasionally associated with abnormal brain wave activity, it can be categorized as myoclonic seizure. If the abnormal brain wave activity is persistent and results from ongoing seizures, then a diagnosis of myoclonic epilepsy may be considered].

28. A 72-year-old man fell while shopping and hurt his knee. His vitals are fine. He speaks in a low voice and is very slow to give answers. What is the most probable diagnosis?
    A. Alzheimers

B. Vascular demetia
C. TIA
D. Pseudo-dementia
E. Picks dementia

Ans. The key is A. Alzheimers. [Alzheimer's disease, is a chronic neurodegenerative disease that usually starts slowly and gradually worsens over time. It is the cause of 60–70% of cases of dementia. The most common early symptom is difficulty in remembering recent events. As the disease advances, symptoms can include problems with language, disorientation (including easily getting lost), mood swings, loss of motivation, not managing self-care, and behavioural issues. As a person's condition declines, they often withdraw from family and society. Gradually, bodily functions are lost, ultimately leading to death].

29. A 70-year-old man presents with balance difficulties, vomiting and nausea. Which of the following is the best investigation?
    A. MRI cerebellum
    B. CT cerebellum
    C. Skull XR
    D. LP
    E. Blood culture

Ans. The key is A. MRI cerebellum. [Balance difficulties, vomiting and nausea suggests cerebellar lesion. In posterior fossa lesion MRI is preferred].

30. A 78-year-old lady on warfarin for atrial fibrillation lives in a care home. She presents with historyofprogressive confusion for three days. She was also noticed to have bruises on her arms. INR 7.What is the most probable diagnosis?

    A. Alzheimers

    B. Delirium

    C. Subdural hemorrhage
    D. Vascular dementia
    E. Pick’s dementia

Ans. The key is C. Subdural haemorrhage. [Age 78 yrs, living in a care home where unnoticed trivial injury is possible (like fall), warfarine and high INR is potential risk factor of subdural haemorrhage suggested by bruises on arms also].

31. A 32-year-old woman suffers an episode of severe occipital headache with vomiting and loss of consciousness. She is brought to the hospital where she is found to be conscious and completely alert. Examination: normal pulse & BP. No abnormal neurological signs. What is the next step in management?
    A. Admission for observation
    B. CT brain

C. MRI head
D. Reassurance and discharge
E. XR skull

Ans. The key is D. Reassure and discharge. [basilar migraine can cause severe headache and LOC.The diagnostic criteria are those of migraine with aura, consisting of at least two of the following fully reversible symptoms, but no motor weakness: dysarthria, vertigo, tinnitus, hypacausis, diplopia, visual symptoms present simultaneously in both temporal and nasal fields of both eyes, ataxia, decreased level of consciousness, and simultaneously bilateral paresthesias].

32. A 63-year-old female is noted to have left pupil irresponsive to light and is dilated. What is the most probably diagnosis?
    A. Pontine hemorrhage
    B. Subdural hemorrhage
    C. Cerebellar hemorrhage
    D. Extradural hemorrhage
    E. Subarachnoid hemorrhage

Ans. The key is B. Subdural hemorrhage. [In elderly extradural hemorrhage is unlikely and subdural hemorrhage is more common.Traumatic expanding subdural hematomas may present with third nerve involvement and are usually accompanied by additional neurological dysfunction. Dilated, sluggish, or fixed pupil (s), bilateral or ipsilateral to the injury occur due to increased intracranial pressure (ICP) or transtentorial herniation].

33. A teacher brings in a child who says she fell down after hitting a table. On probing further, you decide that it was most probably an absence seizure. What led you to this diagnosis?
    A. The child had not eaten since morning
    B. The child suddenly went blank and there was up-rolling of eyes
    C. The child started moving his fingers uncontrollably before he fell
    D. The child's body became rigid and then started to jerk

Ans. The key is B. The child suddenly went blank and there was up-rolling of eyes. [An absence seizure is a generalized onset seizure, which means it begins in both sides of the brain at the same time. An older term is petit mal seizures. Absence seizures usually affect only a person's awareness of what is going on at that time, with immediate recovery].

34. A 74-year-old man presents with weakness in his arm and leg from which he recovered within a few days and short term memory loss. He has an extensor plantar response. He has similar episodes 2 years ago and became unable to identify objects and to make proper judgment. What is the most appropriate diagnosis?
    A. Alcoholic dementia
    B. Pick's dementia
    C. Huntington's disease
    D. Alzheimer's disease

E. Vascular dementia

Ans. The key is E. Vascular dementia. [hemiparesis, memory impairment, extensor planter reflex, inability to identify objects, poor judgment are features of strokes. So likely diagnosis is vascular dementia].

35. A 70-year-old lady presents with fever for 3 days and confusion. There is no significant PMH (past medical history). What is the most probable diagnosis?
    A. Delirium
    B. Hypoglycemia
    C. Alzheimers
    D. DKA

Ans. The key is A. Delirium. [Delirium is an acute confusional state and declined cognitive function which involves changes in arousal (hyperactive, hypoactive or mixed), perceptual deficits, altered sleep-wake cycle, and psychotic features such as hallucinations and delusions].

36. An obese mother suffers from OSAS (obstructive sleep apnoea syndrome). Which of the following investigation is best for her?
    A. ABG
    B. Overnight pulse-oximetry
    C. Polysomnography
    D. EEG

Ans. The key is B. Overnight pulse-oxymetry. [This is already a diagnosed case of OSAS. So no need for reconfirmation with polysomnography. If like to know the current status or monitor overnight pulse oxymetry is good].

37. A 29-year-old woman who was diagnosed to have migraine presents with severe onset of occipital headache. She lost her consciousness. CT scan normal. Neurological examination normal. What is the mostappropriate management?
    A. Repeat CT
    B. MRI
    C. LP
    D. XR
    E. No investigation required

Ans. The key is E. No investigation required. [This is a case of basilar migraine. No investigation required].

38. A 60-year-old woman was found by her son. She was confused and had urinary incontinence. She has recovered fully after 6hours with no neurological complaints. What is the most likely diagnosis?
    A. Stroke

B. Vestibular insufficiency
C. TIA
D. Intracranial hemorrhage

Ans. The key is C. TIA. [Stroke or transient ischemic attack (TIA) may be a risk factor for urgency urinary incontinence (UUI)].

39. A 34 year-old-male presents with history of headache presents with ataxia, nystagmus and vertigo. Where is the site of the lesion?
    A. Auditory canal
    B. 8th CN
    C. Cerebellum
    D. Cerebral hemisphere
    E. Brain stem

Ans. The key is C. Cerebellum. [Features described are consistent with cerebellar lesion].

40. A young girl presenting with fever, headache, vomiting, neck stiffness and photophobia. She has no rashes. What is the most appropriate test to confirm the diagnosis?
    A. Blood culture
    B. Blood glucose
    C. LP
    D. CXR
    E. CT

Ans. The key is C. LP. [Case of meningitis. LP will confirm the diagnosis].

41. A 65-year-old hypertensive man wakes up in the morning with slurred speech, weakness of the left half of his body and drooling. Which part of the brain is affected?
    A. Left parietal lobe
    B. Right internal capsule
    C. Right midbrain
    D. Left frontal lobe

Ans. The key is B. Right internal capsule. [As symptoms are on left side lesion is on right side of the brain. So answer should be either b) right internal capsule or c) right midbrain. If it was midbraine there would have cranial nerve involvement. On the other hand given picture is very much consistent with lacunar infarction of internal capsule].

42. A man presents with muffled hearing and feeling of pressure in ear with tinnitus and vertigo. He also complains of double vision when looking to the right. What is the most appropriate diagnosis?
    A. Meniere's disease
    B. Acoustic neuroma

C. Acute labyrinthytis
D. Meningioma
E. Otosclerosis

Ans. The key is B. Acoustic neuroma. [An acoustic neuroma (vestibular schwannoma) is a benign tumor that develops on the vestibular and hearing, or auditory (cochlear) nerves leading from patient's inner ear to the brain. The pressure on the nerve from the tumor may cause hearing loss and imbalance,feeling of pressure in ear with tinnitus and vertigo. Involvement of other cranial nerves may occur, as here right abducent nerve (double vision when looking to the right)].

43. A 12-year-old girl presented with tics, LOC (loss of consciousness), no residual sign and no post-ictal phase. EEG abnormality in temporal lobe. The girl had a rapid recovery. What is the most probably diagnosis?
    A. Generalized tonic-clonic
    B. Myoclonic
    C. Partial –> generalized seizure
    D. Atonic seizure
    E. Febrile convulsion

Ans. The key is C. Partial –> generalized seizure. [Seizures may be described as either partial (focal) or generalized. Partial seizures only involve a localized part of the brain, whereas generalized seizures involve the whole of both hemispheres. As there is loss of consciousness this is partial complex seizer. Often focal seizers may precipitate into generalized seizer and called partial generalized seizer (more accurately "secondary generalized seizer")].

44. A 68-year-old man gets repeated attacks of LOC (loss of consciousness)and TIA (transient ischemic attack). What is the most likely cause for this?
    A. Atrial fib
    B. Mitral stenosis
    C. Aortic stenosis
    D. HOCM
    E. Carotid artery stenosis

Ans. The key is E. Carotid artery stenosis.

45. A child was admitted following a RTA (road traffic accident) with initial GCS=15. Then during the night the noticed GCS reduced to 13. What is the management?
    A. Refer to neuro-surgeon
    B. IV fluids
    C. Oxygen
    D. CT brain
    E. Skull XR

Ans. The key is D. CT brain. [probable intracranial haemorrhage].

46. A 56-year-old woman with MS (multiple sclerosis) presents with drooping of the left side of her lips. She also has loss of sensation over her face, hearing impairment and some in-coordination of her movements. What is the most likely anatomical site affected?
    A. Cerebellum
    B. Cerebrum
    C. Spinal cord
    D. Brain stem
    E. Optic nerve

Ans. The key is D. Brain stem. [Features of 5, 7, 8th cranial nerve and cerebellar involvement are suggestive of brainstem lesion].

47. A 72-year-old man has been on warfarin for 2years because of past TIA and stroke. What is the most important complication that we should be careful with?
    A. Headache
    B. Osteoporosis
    C. Ear infection
    D. Limb ischemia
    E. Diarrhea

Ans. The key is A. Headache. [Headache is the warning sign of hemorrhagic stroke].

48. A 64-year-old man has presented to the emergency department with a stroke. CT shows no hemorrhage. ECG shows atrial fibrillation. He has been thrombolysed and he's awaiting discharge. What prophylactic regimen is best for him?
    A. Warfarin
    B. Heparin
    C. Aspirin
    D. Statins
    E. Beta blockers

Ans. The key is A. Warfarine. [Atrial fibrillation: post stroke- following a stroke or TIA warfarine should be given as the anticoagulant of choice. NICE guideline].

49. A 54-year-old man after a CVA (cerebrovascular accident) presents with ataxia, intention tremors and slurred speech. Which part of the brain has been affected by the stroke?
    A. Inner ear
    B. Brain stem
    C. Diencephalon
    D. Cerebrum
    E. Cerebellum

Ans. The key is E. Cerebellum. [Following are the common features of cerebellar lesion: i) Ataxia ii) slurred speech or dysarthria iii) dysdiodokokinesis iv) intention tremor v) nystagmus].

50. A 40-year-old chronic alcoholic who lives alone, brought in the emergency department having been found confused at home after a fall. He complains of a headache and gradually worsening confusion. What is the most likely diagnosis?
    A. Head injury
    B. Hypoglycemia
    C. Extradural hematoma
    D. Subdural hematoma
    E. Delirium

Ans. The key is D. Subdural hematoma. [subdural hematoma may be acute or chronic. In chronic symptoms may not be apparent for several days or weeks. Symptoms of subdural hematomas are: fluctuating level of consciousness, ± insidious physical or intellectual slowing, sleepiness, headache, personality change and unsteadiness. Treatment: Irrigation/evacuation e.g. via barr twist drill and barr hole craniostomy 1st line. Craniotomy if the clot organized 2nd line].

51. A 64-year-old man presents with a history of left sided hemiparesis and slurred speech. He was absolutely fine 6hours after the episode. What is the most appropriate prophylactic regimen?
    A. Aspirin 300mg for 2 weeks followed by aspirin 75mg
    B. Aspirin 300mg for 2 weeks followed by aspirin 75mg and dipyridamole 200mg
    C. Clopidogrel 75mg
    D. Dipyridamole 200mg
    E. Aspirin 300mg for 2 weeks

Ans. The key is C. Clopidogrel 75mg.

52. A patient had TIA (transient ishchemic attack) which he recovered from. He has a history of stroke and exam shows HR (heart rate) in sinus rhythm. He is already on aspirin 75mg and anti-hypertensive drugs. What other action should be taken?
    A. Add clopidogrel only
    B. Increase dose of aspirin to 300mg
    C. Add warfarin
    D. Add clopidogrel and statin
    E. Add statin only

Ans. The key is E. Add statin only. [He who is already on aspirin needs no change in aspirin dose. Clopidogrel is now drug of choice for secondary prevention in TIA but if someone is already on aspirin he should continue it at same dose and should be considered to shift to clopidogrel in next few visits. So for given case correct option is add statin only].

53. A 44-year-old man comes with history of early morning headaches and vomiting. CT brain shows ring enhancing lesions. What is the single most appropriate option?
    A. CMV
    B. Streptococcus
    C. Toxoplasmosis

D. NHL (non-Hodgkin's lymphoma)
E. Pneumocystis jerovii

Ans. The key is C. Toxoplasmosis. [Toxoplasmosis is a parasitic disease caused by Toxoplasma gondii. This can cause damage to the brain (encephalitis) particularly in immunocompromised people, such as those with HIV/AIDS, those taking certain types of chemotherapy, or those who have recently received an organ transplant].

54. A 65-year-old man with difficulty in swallowing presents with an aspiration pneumonia. He has a bovine cough and fasciculating tongue. Sometimes as he swallows food it comes back through his nose. Choose the single most likely cause of dysphagia from the given option?

A. Bulbar palsy

B. Esophageal carcinoma

C. Pharyngeal pouch

D. Pseudobulbar palsy

E. Systemic sclerosis

Ans. The key is A. Bulbar palsy. [Dysphagia, nasal regurgitation, fasciculating tongue these are features of bulbar palsi due to lower motor neuronal lesion of IX-XII nerves].

55. A 38-year-old female presents with sudden loss of vision but fundoscopy is normal. She had a similar episode about 1 year ago which resolved completely within 3 months. Examination: mild weakness of right upper limb and exaggerated reflexes. What is the single most appropriate treatment?

A. Pan retinal photo coagulation

B. Pilocarpine eye drops

C. Corticosteroids

D. Peripheral iridectomy

E. Surgical extraction of lens

Ans. The key is C. Corticosteroid. [Sudden loss of vision, remission and relapse of optic neuritis and focal neurological symptoms and exaggerated reflexes all points towards multiple sclerosis. Treatment option is corticosteroids].

56. A 64-year-old woman has difficulty moving her right shoulder on recovering from surgery of the posterior triangle of her neck. What is the single most appropriate option?

A. Accessory nerve

B. Glossopharyngeal nerve

C. Hypoglossal nerve

D. Vagus nerve

E. Vestibule-cochlear nerve

Ans. The key is A. Accessory nerve. [Accessory nerve lesion causes weakness of the trapezius muscle and can produce a drooping shoulder, winged scapula, and a weakness of forward elevation of the shoulder].

57. A 50-year-old woman presents following a fall. She reports pain and weakness in her hands for several months, stiff legs, swallowing difficulties, and has bilateral wasting of the small muscles of her hands. Reflexes in the upper limbs are absent. Tongue fasciculations are present and both legs show increased tone, pyramidal weakness and hyper-reflexia with extensor plantars. Pain and temp sensation are impaired in the upper limbs. What is the most likely diagnosis?

A. MS (multiple sclerosis)

B. MND (motor neuron disease)

C. Syringobulbia

D. Syringomyelia

E. Myasthenia gravis

Ans. The key is C. Syringobulbia. [In MS there are characteristic relapse and remission which is absent here; In MND there is no sensory deficit; Syringomyelia doesn't cause cranial nerve lesion and in myasthenia there is muscular weakness without atrophy. Here the features described well fits with syringobulbia].

58. A 56-year-old man has symptoms of sleep apnea and daytime headaches and somnolence. Spirometry shows a decreased tidal volume and vital capacity. What is the single most appropriate diagnosis?
A. Ankylosing spondylitis
B. Churg-strauss syndrome
C. Good pasture syndrome
D. Motor neuron disease
E. Progressive massive fibrosis
F. Spinal cord compression

Ans. The key is D. Motor neuron disease. [involvement of respiratory muscles in MND is associated with poor respiration causing sleep apnoea].

59. A young adult presents to the emergency department after a motorcycle crash. The patient has bruises around the left orbital area. GCS 13, examination notes alcoholic breath. Shortly afterwards, his GCS drops to 7. What is the single most important initial assessment test?
    A. MRI brain
    B. CT brain
    C. CXR
    D. CT angio brain
    E. Head X-ray

Ans. The key is B. CT brain. [Likely cause is epidural hematoma].

60. A 32-year-old woman presents to the emergency department with headache and vomiting. She was decorating her ceiling that morning when the headache began, felt mainly occipital with neck pain. Some 2 hours later she felt nauseated, vomited and was unable to walk. She also noticed that her voice had altered. She takes no regular medications and has no significant past medical history. Exam: acuity, field and fundi are normal. She has upbeat nystagmus in all directions of gaze with normal facial muscles and tongue movements. Her uvulas deviated to the right and her speech is slurred. Limb exam: left arm past-pointing and dysdiadochokinesis with reduced pin prick sensation in her right arm and leg. Although power is normal, she can't walk as she feels too unsteady. Where is the most likely site of lesion?
    A. Right medial medulla
    B. Left medial pons
    C. Left cerebellar hemisphere
    D. Right lateral medulla
    E. Left lateral medulla

Ans. The key isE. Left lateral medulla. [Diagnosis is Lateral Medullary Syndrome. There is a loss of pain and temperature sensation on the contralateral (opposite) side of the body and ipsilateral (same) side of the face. There is associated cerebellar symptoms and other cranial nerve involvement].

61. A 6-month-old baby had loss of consciousness after which he had jerky movement of hands and feet. What is the most probable diagnosis?
    A. Infantile spasm
    B. Absence seizure
    C. Partial simple seizure
    D. Atonic seizure
    E. Partial complex seizure

Ans. The key is E. Partial complex seizure.

62. A child has just recovered from meningitis. What investigation will you do before discharge?

    A. CT scan
    B. EEG

C. Blood culture
D. Repeat LP
E. Hearing test

Ans. The key is E. Hearing test. [deafness is a common complication of meningitis, so hearing test is suggested before discharge].

63. A 68-year-old woman has a sudden onset of pain and loss of hearing in her left ear and unsteadiness when walking. There are small lesions visible on her palate and left external auditory meatus. What is the single most likely diagnosis?
    A. Acute mastoiditis
    B. Cholesteatoma
    C. Herpes zoster infection
    D. Oropharyngeal malignancy
    E. OM with infusion

Ans. The key is C. Herpes zoster infection.

64. For a patient presenting with Parkinson's disease which of the following drugs is most useful in the management of the tremor?
    A. Apomorphine
    B. Cabergoline
    C. Selegiline
    D. Amantadine
    E. Benzhexol

Ans. The key is E. Benzhexol. [Benzhexol (an antiparkinsonian agent of anticholinergic class) is the drug of choice in parkinson's disease induced tremor)].

65. A man was brought to the emergency department from a shopping mall after collapsing there. He is conscious and answering questions now. His ECG shows irregular rhythm. Your choice of investigation:
    A. CT
    B. MRI
    C. 24h ECG
    D. Echo

Ans. The key is D. Echo. [Echo may show clot in atrial appendage responsible for this attack of TIA secondary to atrial fibrillation].

66. A 50-year-old man presents to the emergency department with acute back pain radiating down to his legs. Pain which is usually relieved by lying down and exacerbated by long walks and prolong sitting. What investigation would be the best option?
    A. MRI

B. CT spine
C. XR spine
D. Dual energy XR abruptiometry
E. Serum paraprotein electrophoresis

Ans. The key is A. MRI. [Back pain radiating to leg, pain releaved by lying down and exacerbated by long walk and prolonged sitting are characteristic of lumber (intervertebral) disc disease].

67. A woman presented with blurred vision and intermittent clumsiness for 3 months. Reflexes are brisk in her arm and optic disc is pale. What is the single most appropriate test to confirm diagnosis?
    A. CSF analysis
    B. CT
    C. MRI
    D. EEG
    E. EMG

Ans. The key is C. MRI. [Features are suggestive of multiple sclerosis. Investigation of choice is gadolinium enhanced MRI].

68. A 63-year-old man presents after having a seizure. Examination: alert, orientated, inattention on the left side and hyperreflexia of the arm. What is the most probable diagnosis?
    A. Cerebral tumor
    B. Pituitary adenoma
    C. Cerebellar abscess
    D. Huntingtons chorea
    E. Parkinsonism

Ans. The key is A. Cerebral tumour.

69. A 50-year-old lady with weak limbs when examined was found to have burn marks on finger tips, wasted and weak hands with diminished reflexes. She also has weak spastic legs and dissociated sensory loss. What is the diagnosis?
    A. MS
    B. Syringomyelia
    C. MND
    D. Guillian-barre
    E. Freidriech's ataxia

Ans. The key is B. Syringomyelia. [weak limbs, burn mark on fingertip (as pain and temperature sensation are lost due to spinothalamic tract damage), wasted and weak hands with diminished reflexes, weak spastic legs with dissociated sensory loss are features suggestive of Syringomyelia.

Common features are given below:

Sensory features: 1) loss of pain and temperature sensation 2) sensory loss is experienced over the arms, shoulders and upper body 3) light touch, vibration and position senses in the feet are affected as the syrinx enlarges into the dorsal column.

Motor features: (when lower motor neurons of the anterior horn cells are affected) 1) muscle wasting and weakness begins in the hands and then affects the forearms and shoulders. 2) tendon reflexes are lost. Autonomic involvement like bladder and bowel can occur. (patient.co.uk])].

70. A-73-year old male presents with a 12 months history of falls. His relatives have also noticed rather strange behavior of late and more recently he has had episodes of enuresis. Examination: disorientation to time and place, broad-based, clumsy gait. What is the most probable diagnosis?
    A. Dementia
    B. Pituitary adenoma
    C. CVD
    D. Syringomyelia
    E. Normal pressure hydrocephalus

Ans. The key is E. Normal pressure hydrocephalus. [Normal pressure hydrocephalus (NPH) is a clinical symptom complex caused by the build-up of cerebrospinal fluid. This condition is characterized by abnormal gait, urinary incontinence, and (potentially reversible) dementia. history of falls and broad based clumsy gait (balance and gait disturbance), strange behavior and disorientation to time and place (due to dementia), episodes of enuresis (urinary incontinence) points towards normal pressure hydrocephalus. Classic triad of normal pressure hydrocephalus: i) gait abnormality ii) urinary incontinence and iii) dementia].

71. A 75-year-old nursing home resident complains of headache, confusion and impaired vision for 4 days. She has multiple bruises on her head. What is the most likely cause of confusion in this patient?

A. Alcohol intoxication

B. Infection

C. Subdural hematoma

D. Hypoglycemia

E. Hyponatremia

Ans. The key is C. Subdural hematoma. [elderly patient with multiple bruises on her head suggest head injury which can lead to subdural hematoma. Headache, confusion and impaired vision for 4 days indicate subacute subdural hematoma (three pahgesi) acute ii) subacute 3 – 7 days and iii) chronic 2 – 3 weeks]. Symptoms of subdural hematoma:

- a headache that keeps getting worse
- feeling and being sick
- confusion
- personality changes, such as being unusually aggressive or having rapid mood swings
- feeling drowsy and finding it difficult to keep your eyes open
- speech problems, such as slurred speech
- problems with your vision, such as double vision
- paralysis (loss of movement) on one side of the body
- problems walking and frequent falls
- seizures (fits)
- loss of consciousness

[Reference: nhs.uk]

72. A 69-year-old woman has had a stroke. Her left upper and lower limbs are paralyzed and she is having difficulty in speaking. Which anatomical site is most likely affected?
    A. Hippocampus
    B. Cerebellum
    C. Internal capsule
    D. Thalamus
    E. Brain stem

Ans. The key is C. internal capsule. [Hippocampal lesion causes mainly memory impairment. Cerebellum has its diagnostic features that is not present here. Thalamic lesion can lead to impairment of arousal, orientation, learning and memory, facial paresis, language deficit, hemispatial neglect, hemisensory loss, hemiparesis, hemiataxia and visual field defect. Brainstem stroke causes impaired consciousness, disorder of blood pressure, and breathing abnormality. Given picture is typical of lesion in internal capsule].

73. A patient presents with gradual onset of headache, neck stiffness, photophobia and fluctuating LOC (loss of consciousness). CSF shows lymphocytosis but no organism on gram stain. CT brain is normal. What is the single most likely diagnosis?
    A. Hairy leukoplakia
    B. TB
    C. CMV infection
    D. Candida infection
    E. Cryptococcal infection

Ans. The key is B. TB. [Fungal meningitis can also present like this but it is much more rare. Moreover negative gram stain excludes fungal cause here. Hence TB meningitis is the answer].

74. A 74-year-old female presents with headache and neck stiffness to the emergency department. Following a LP the patient was started on IV ceftriaxone. CSF culture revealed listeria monocytogenes. What is the appropriate treatment?

A. Add IV amoxicillin
B. Change to IV amoxicillin + gentamicin
C. Add IV ciprofloxacin
D. Add IV co-amoxiclav
E. Continue IV ceftriaxone as mono-therapy

Ans. The key is B. Change to IV amoxicillin + gentamycin. [From the given option B is the most acceptable. However Ampicillin + gentamycin is the drug combination of choice].

75. A 30-year-old man is suffering from fever, rash and photophobia. Doctors are suspecting he is suffering from meningitis. Which is the best medication for this condition?
    A. Ampicillin
    B. Cefotaxime
    C. Tetracycline
    D. Acyclovir
    E. Dexamethasone

Ans. The key is B. Cefotaxime. [The patient is getting probable meningococcal meningitis. Before confirming the diagnosis suggested treatment is, where the organism is unknown:

• <55yrs: cefotaxime 2g/6h slow IV.
• >55yrs: cefotaxime as above + ampicillin 2g IV/4h (for Listeria). So in given case Cefotaxime is the option].

76. A 42-year-old man has been tired and sleepy for the last few weeks in the morning. His work has started getting affected as he feels sleepy in the meetings. His BMI is 36. What is the single most likely diagnosis?
    A. Idiopathic hypersomnia
    B. Narcolepsy
    C. Chest hyperventilation syndrome
    D. OSAS (obstructive sleep apnea syndrome)
    E. REM-related sleep disorder

Ans. The key is D. OSAS. [Day time somnolence and obesity (high BMI of 36) points the diagnosis of OSAS].

77. A 35-year-old pregnant woman has been having tingling and numbness of her thumb, index and middle fingers for a while. She has been treated with local steroids but it hasn't helped her much and now she has planned to undergo a surgical procedure. Which of the following structures will be incised?
    A. Flexor digitorum profundus
    B. Transverse carpal ligament
    C. Palmar aponeurosis
    D. Extensor retinaculum

Ans. The key is B. Transverse carpal ligament. [This is a case of carpal tunnel syndrome. So transverse carpal ligament is the structure which will be incised].

78. Which of the following reflexes and innervating spinal nerves are correctly paired?
    A. Anal reflex – S1
    B. Ankle jerk – L5
    C. Biceps jerk – C7 & C8
    D. Knee jerk – L3 & L4
    E. Triceps jerk – T1

Ans. The key is D. Knee jerk – L3 & L4. [Anal reflex – S2-4; Ankle jerk – S1-2; Biceps jerk – C5-6; Knee jerk – L3-4; Triceps jerk – C7].

79. A 68-year-old lady complains of falls to the ground without any warning, maintains consciousness and no confusion. She says this has occurred at number of times. What is the diagnosis?
    A. Stokes Adams attack
    B. Hypoglycemia
    C. Vasovagal syncope
    D. Drop attacks
    E. Epilepsy

Ans. The key is D. Drop attacks. [Drop attacks are sudden spontaneous falls while standing or walking, with complete recovery in seconds or minutes. There is usually no recognized loss of consciousness, and the event is remembered].

80. A man sat cross-legged for about 30 minutes. After this he was unable to dorsiflex his left foot and had loss of sensation in the web space between the big toe and the 2nd toe. He also has sensory loss on the same side of the foot after 2 hour. Which of the following was affected?
    A. Femoral nerve
    B. Sural nerve
    c. Peroneal nerve
    D. Sciatic nerve

Ans. The key is C. Peroneal nerve. [Common peroneal nerve winds round the fibular neck at knee joint and when a man sits cross legged for a considerable time pressure exerted on the nerve may cause nerve palsi].

81. An employer sent his worker to the emergency department after having hit his head on a machine. Examination: normal. What is the single most likely investigation you would do?
    A. Skull X-ray
    B. CT head
    C. MRI head
    D. Reassure

Ans. The key is A. Reassurance. [Indications for CT are not fulfilled by given criteria for CT. NICE has mentioned X-ray skull is no more preferred over CT. As no sign of basal or skull fracture no need to do skull X-ray. Hence answer for this question is D. Reassurance].

82. An 82-year-old woman has developed painful rash on one side of her forehead and anterior scalp. Lesions have also affected her cornea. What is the single most appropriate option?
    A. Accessory nerve
    B. Facial nerve
    C. Olfactory nerve
    D. Optic nerve
    E. Trigeminal nerve

Ans. The key is E. Trigeminal nerve. [Probable herpes zoster opthalmicus].

83. A 66-year-old woman has been brought to the hospital on a number of occasions with a history of loss of memory. Her past medical history is significant for an MI 6yrs ago. It is noted that she has a step wise decline of her cognitive functions. What is the most likely diagnosis?
    A. Alzhemiers
    B. Vascular dementia
    C. Pick's dementia
    D. Huntington's disease
    E. Lewy body dementia

Ans. The key is B. Vascular dementia. [Age 65 yrs (vascular dementia is rare at age before 65), history of MI and stepwise decline of cognitive function indicates vasculopathy and hence vascular dementia].

84. A 62-year-old man who has recently had flu-like illness has woken to find his speech altered. Movement of his eyelids and lips are weak on the right side. Examination: normal. Which anatomicalsite is most likely to be affected?
    A. Facial nerve
    B. Hypoglossal nerve
    C. Oculomotor nerve
    D. Trigeminal nerve
    E. Glossopharyngeal nerve

Ans. The key is A. Facial nerve. [Viral infection is a common cause of facial nerve palsy].

85. A 58-year-old man has a headache and confusion of 3 days after slipping and hitting his head in the garden. What is the most appropriate initial investigation?
    A. XR skull
    B. XR face
    C. CT brain
    D. MRI brain
    E. EEG

Ans. The key is C. CT brain. [The likely diagnosis is subdural haematoma for which appropriate initial investigation is CT scan of brain].

86. A woman previously in good health presents with sudden onset of severe occipital headache and vomiting. Her only physical sign on exam is a stiff neck. Choose the most likely diagnosis.
    A. Subarachnoid hemorrhage
    B. Subdural hematoma
    C. Cerebellar hemorrhage
    D. Migraine
    E. Cerebral embolus

Ans. The key is A. Subarachnoid hemorrhage. [Sudden onset severe occipital headache and vomiting with stiffness makes the likely diagnosis to be subarachnoid hemorrhage].

87. A 34-year-old housemaid presents with headaches in the back of her head for several days and pain on flexing her neck. What is the most likely cause?
    A. Subdural hemorrhage
    B. Cervical spondylosis
    C. Subarachnoid hemorrhage
    B. Meningitis
    E. Cluster headache

Ans. The key is B. Cervical spondylosis. [Headache in the back of head and pain on flexing neck is early feature of cervical spondylosis which gradually progress to later symptoms like radiculopathies due to root compression in arms and hands].

88. A 75-year-old man on digoxin develops weakness in the right upper and lower limbs which resolves within a few hours. What is the most definitive investigation for this condition?
    A. Carotid Doppler
    B. Angiography
    C. CT head
    D. Digoxin level

Ans. The key is C. CT head. [Patient on digoxin means he is being treated for atrial fibrillation with heart failure and the cause of TIA is cardiac in origine! So carotid dopplar or carotid angiography is not the answer. Again for TIA investigation of choice is MRI (if not available CT) NICE guideline. So for this question definitive investigation is CT scan].

89. A 35-year-old man presents with balance problems, headache, SNHL (sensory neural hearing loss) and loss of coreneal reflex on the left side. What is the most definitive investigation?
    A. CT scan of internal auditory meatus
    B. Nuclear imagine of the brain
    C. MRI of internal auditory meatus
    D. MRI brain

Ans. The key is C. MRI internal auditory meatus. [Probable diagnosis is left sided acaustic neuroma. For this most definitive investigation is MRI internal auditory meatus].

90. A 42-year-old female had sudden severe headache and vomiting. She took paracetamol and then collapsed. What is the most likely diagnosis?
    A. SAH (subarachnoid hemorrhage)
    B. Viral encephalitis
    C. Meningitis
    D. Anaphylaxis

Ans. The key is A. SAH. [Sudden headache, vomiting, collapse are suggestive of SAH].

91. A 60-year-old man was brought in by his wife complaining of ataxia, urinary incontinence and erectile dysfunction. He also complains of rigidity and slowing of movement with a pill rolling tremor of the hands. What is the likely diagnosis?
    A. Parkinson's disease
    B. Idiopathic parkinson's disease
    C. Shy-drager syndrome
    D. Huntington's disease

Ans. The key is C. Shy-drager syndrome. [Shy-drager syndrome is characterized by parkinsonism (rigidity, slowing of movement with hand tremors) plus a more pronounced failure of the autonomic nervous system (urinary incontinence and erectile dysfunction) and there may also cerebellar sign like ataxia be present]. [Please note the discrepancy of this question (may be a bad recall) that classic pill rolling movement is not a feature of multiple system atrophy (shy-dragersyndrome)].

92. A 17-year-old has acute pain around his right eye, pain on one side of his face and ear ache too. What is the single most likely diagnosis?
    A. Ear wax
    B. Ear foreign body
    C. Dental abscess
    D. Cellulitis
    E. Herpes zoster

Ans. The key is E. Herpes zoster. [It seems to be herpes zoster of the trigeminal nerve. Onset is acute, unilateral distribution favours herpes zoster].

93. A 31-year-old man underwent an operation where his hand was hanging outside the table. After the operation he had wrist drop and sensory loss over the dorsum of his hand. Which nerve was injured?
    A. Radial
    B. Ulnar
    C. Median
    D. Axillary

E. Brachial

Ans. The key is A. Radial. [As the man's hand was hanging outside the ot table there was pressure on radial nerve at arm level which is similar lesion of Saturday night palsy].

94. A 64-year-old man presents with ipsilateral vertigo, tinnitus and left sided hearing loss. Examination: Rinne test +ve and Weber's lateralizes to the right ear. What is the most appropriate investigation?
    A. CT
    B. MRI brain
    C. XR
    D. Audiometry
    E. None

    F. Caloric testing

Ans. The key is B. MRI brain. [Rinne positive, so it is not conductive deafness. Again we know if weber lateralize to deaf ear it is conductive and lateralized away from deaf ear then it is sensoryneural. So here there is sensoryneural hearing loss in left ear. So the most appropriate investigation is MRI brain].

95. A 23-year-old man sprained his right ankle 6 weeks ago while playing football. He was treated with a below knee walking cast. On removal of the cast, the patient noted to have right foot drop. He has weakness of extensors of the ankle and toes and diminished pin prick sensation over the dorsumof the foot. The ankle jerk is present and plantar reflex is flexor. What is the most likely cause of the foot drop?
    A. Compression of common peroneal nerve
    B. Compression of the tibial nerve
    C. Compression of the S1 nerve root
    D. Rupture of Achilles tendom
    E . Tear of the medial collateral ligament of the ankle

Ans. The key is A. Compression of common peronial nerve. [Foot drop, weakness of extensors of the ankle and toes and diminished pin prick sensation over the dorsum is sugestive of compression of common peroneal nerve].

96. A 3-year-old girl presents with complains of sudden right facial weakness and numbness and pain around her ear. There are no symptoms. What is the most appropriate diagnosis?
    A. SAH
    B. Bell's palsy
    C. Stroke
    D. TIA
    E. Subdural hemorrhage

Ans. The key is B. Bell's palsy.

97. A 33-year-old female complains of diplopia on upright gaze. Examination: ptosis can be seen. There are no other complains or any significant PMH (past medical history). What is the most appropriate investigation for him?
    A. Ophthalmoscopy
    B. Visual field test
    C. TFT
    D. CT
    E. Checking red reflex

Ans. The key is D. CT. [A case of 3rd nerve palsy. So to delineate the cause CT should be done].

98. A 68-year-old patient wakes up with slurred speech and right sided weakness. CT shows cerebral infarct. What is the most appropriate treatment?
    A. Aspirin
    B. Alteplase
    C. Warfarin
    D. Clopidogrel
    E. Dipyridamole

Ans. The key is A. Aspirin. [The window period to administer alteplase is 4.5 hours. If we cannot certain (here patient was in sleep, so time period is not possible to establish) this period we cannot proceed for alteplase].

99. A 73-year-old man who is recovering from surgery on the left carotid artery in his neck. He has slurred speech. On protrusion of his tongue, the tip deviated to the left. What is the single most appropriate option?
    A. Accessory nerve
    B. Facial nerve
    C. Glossopharyngeal nerve
    D. Hypoglossal nerve
    E. Vagus nerve

Ans. The key is D. Hypoglossal nerve. [Testing function of the nerve is performed by asked the subject to stick their tongue straight out. If there is a loss of innervation to one side, the tongue will curve toward the affected side, due to unopposed action of the opposite genioglossus muscle. If this is the result of alower motor neuron lesion, the tongue will be curved towards the damaged side, combined with the presence of fasciculations or atrophy. However, if the deficit is caused by an upper motor neuron lesion, the tongue will be curved away from the side of the cortical damage, without the presence of fasciculations or atrophy].

100. A 45-year-old male complains of tremors in hands. Examination: tremors are absent at rest but present when arms are held outstretched and persist on movement. What is the most probable diagnosis?
    A. Parkinsonism

B. Benign essential tremor
C. Cerebellar disease
D. Liver failure
E. Stroke

Ans. The key is B. Benign essential tremor. [Tremors absent at rest and present on outstretched hand and persist on movement are benign essential tremor].

101. A 24-year-old male involved in RTA with X-ray showing fracture neck of humerus. What is the single most associated nerve injury?
A. Axillary nerve
B. Radial nerve
C. Median nerve
D. Ulnar nerve

Ans. The key is A. Axillary nerve.

102. An 82-year-old man has woken up with incoherent speech and difficulty in finding the right words. Examination: otherwise normal, good comprehension. Which anatomical site is most likely to be affected?
A. Broca's area
B. Wernicke's area
C. Midbrain
D. Parietal cortex
E. Pons

Ans. The key is A. Broca's area. [A person with expressive aphasia will exhibit halting and effortful speech. Speech may only include important content words. Word comprehension is preserved. The person may still be understood, but sentences will not be grammatical. This contrasts with receptive or Wernicke's aphasia, which is distinguished by a patient's inability to comprehend language or speak with appropriately meaningful words though fluency may be preserved].

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103. A-34-year old male presents with headache and vomiting. Examination: temperature 38.5C, neck stiffness, discharge from left ear and right sided hyper-reflexia with an extensor plantar response. What is the most likely diagnosis?
A. Cerebral tumor
B. Meningitis
C. Cerebellar tumor
D. Cerebral abscess
E. Normal pressure hydrocephalus

Ans. The key is D. Cerebral abscess. [Otitis media can lead to cerebral abscess].

104. A 26-year-old male presents with speech difficulties. Examinations: nystagmus. Which anatomical site is most likely to be affected?
A. Midbrain
B. Pons
C. Cerebellum
D. Cerebrum
E. Vestibule cochlear nerve

Ans. The key is C. Cerebellum. [Difficulty speech (cerebellar dysarthria) and nystagmus are suggestive of cerebellar lesion].

105. A 50-year-old man complains of visual problems and dull pain in the left eye. Fundoscopy reveals papilloedema. He was diagnosed with MS 2yrs ago. There is no consensual light reflex of the right eye. What is the single most likely defect?
A. Paracentral scotoma
B. Mono-ocular field loss
C. Homonymous upper quadrantanopia
D. Central scotoma
E. Homonymous lower quadrantanopia

Ans. The key is B. Mono-ocular field loss.

106. A 54-year-old patient wakes up with right sided weakness. His current medication is bendroflumethiazide for HTN (hypertension). Pulse 92 bpm, BP 160/90mmHg. CT shows left cerebral infarct. What is the most appropriate treatment?
A. Alteplase
B. Aspirin
C. Clopidogrel
D. Dipyridamole
E. Simvastatin

Ans. The key is B. Aspirin. [In stroke window period to use alteplase is 4.5 hours. In the given history we can in no way certain the time of stroke and we can not proceed for alteplase unless window period is confirmed. Hence we cannot give alteplase but Aspirin].

107. A 33-year-old man presented to the GP with history of headaches and photophobia. The GP examines him and finds a rash and is now ringing you at the hospital for advice. What would you advice the GP?
A. Send patient home
B. Start IV benzylpenicillin
C. Conduct LP
D. Start IV ceftriaxone

Ans. The key is B. Start IV benzylpenicillin. [Before hospitalization IV benzylpenicillin. In hospital Ceftriaxone can be given but not in calcium containing fluid instead give Cefotaxime (NICE). According to OHCM hospital management is Cefotaxime if <55yrs and Cefotaxime + Ampicillin if >55yrs].

108. A 42-year-old man presents with stroke. He is not able to walk straight and his speech is slurred. What is the initial appropriate investigation?
A. CT brain
B. PET brain
C. MRI brain
D. Carotid angiography
E. Monitor for 24h

Ans. The key is C. MRI brain. [Ataxia and slurred speech are features of cerebellar lesion which is posterior fossa organ. For posterior fossa lesion MRI is the investigation of choice].

109. A 35-year-old woman presents with visual problems. CT brain reveals pituitary tumor. What is the single most likely defect?
A. Homonymous hemianopia
B. Homonymous upper quadrantanopia
C. Bitemporal hemianopia
D. Cortical blindness
E. Homonymous lower quadrantanopia

Ans. The key is C. Bitemporal hemianopia. [pituitary tumour by pressing optic chiasma causes bitemporal hemianopia].

110. A young lady presents with gradually worsening headaches, visual disturbance, and lack of energy. MRI shows 15mm tumor in the pituitary fossa. What is the treatment of choice?
A. Radiotherapy
B. Octreotide
C. Reassurance and f/u after 6m
D. Surgery
E. Chemotherapy

Ans. The key is D. Surgery. [Hormonically active tumour, tumour causing pressure symptoms (like headache, visual disturbance) and large size of tumour are indications for surgical removal].

111. A 50-year-old man with a known history of stroke. He can't remember anything about his life. What is the single most likely defect?
A. Homonymous hemianopia
B. Homonymous upper quadrantanopia
C. Bitemporal hemianopia
D. Binasal hemianopia
E. Homonymous lower quadrantanopia

Ans. The key is B. Homonymous upper quadrantanopia. [Memory processing occur in temporal lobe. So as the patient lost memory his temporal lobe is involved. We know temporal lobe lesion causes "homonymous upper quadrantanopia" which is the key here].

112. A 75-year-old woman has weakness of the left side of her face. She has had a painful ear for 48 hours. There are pustules in the left ear canal and on the eardrum. What is the single most likely diagnosis?
A. Chronic serous OM
B. Herpes zoster infection
C. Impacted earwax
D. Perforation of eardrum
E. Presbycusis

Ans. The key is B. Herpes zoster infection. [A case of Ramsay Hunt syndrome defined as an acute peripheral facial neuropathy associated with erythematous vesicular rash of the skin of the ear canal, auricle (also termed herpes zoster oticus), and/or mucous membrane of the oropharynx caused by Herpes zoster infection].

113. A 45-year-old lady presents with history of double vision and facial numbness. Which anatomical site is most likely to be affected?
A. Cerebral cortex
B. Trigeminal nerve
C. Oculomotor nerve
D. Brain stem
E. Basal ganglia

Ans. The key is D. Brain stem. [Cerebral cortex will not cause features of cranial nerve lesions. Trigeminal nerve: ophthalmic and maxillary divisions are pure sensory hence it is also not the answer. Oculomotor does not cause facial numbness. These features are not of basal ganglia lesion also. These features only can be explained by cranial nerve involvement in brainstem lesion].

114. A 65-year-old lady presents with a 6 hours history of facial droop and weakness in the left side of her body. What single agent will she be prescribed for her whole life?
A. Clopidogrel
B. Altepase
C. Aspirin
D. Labetalol

Ans. The key is A. Clopidogrel. [For both TIA and stroke Clopidogrel is prescribed for life long if there are no drug allergies].

115. A man with history of fall had confusion and laceration mark on the head. Which is the most appropriate vessel affected?
A. Basiliary artery

B. Middle meningeal artery
C. Vertebral artery
D. Diploic vein

Ans. The key is B. Middle meningeal artery. [Considerable head injury and lucid interval (several episodes of transient confusion)points towards extradural hematoma which occurs frequently from bleeding from middle meningeal artery. Subdural hematoma usually occur due to bleeding vein].

116. A 56-year-old patient has been diagnosed with MS (multiple sclerosis). She presents with a positive Romberg's test. She also has weakness and loss of sensations in all her 4 limbs. Which site is most likely to be affected?
A. Cerebral cortex
B. Cerebellum
C. Cervical spinal cord
D. Thoracic spinal cord
E. Brain stem

Ans. The key is C. Cervical spinal cord. [Quadriplegia is the feature of cervical cord lesion].

117. A 32-year-old woman suffers an episode of severe occipital headache with vomiting and LOC (loss of consciousness). She is brought to the hospital where she is found to be conscious and completely alert. Examination: normal pulse and BP with no abnormal neurological sign. What is the next step in her management?
A. Admission for observation
B. CT brain
C. MRI head
D. Reassurance and discharge home
E. XR skull

Ans. The key is B. CT brain. [To exclude any possible intracranial bleeding].

118. A 74-year-old man presents with sudden onset of with right sided weakness and slurred speech. He also has loss of sensation over the right side of the body and visual field defects. CT shows ischemic stroke. What is the most appropriate management?
A. Alteplase
B. Streptokinase
C. Nimodipine
D. Aspirin
E. Labetolol

Ans. The key is A. Alteplase. [If no time frame is mentioned it is assumed that patient arrived at window period unless given evidence of uncertain time like stroke after getting up from sleep. Aspirin is started at least after 24 hours of giving alteplase].

119. A 67-year-old man presents with a history of increasing confusion and drowsiness. He had a fall 2 weeks ago. CT head reveals a chronic subdural hematoma. What is the best management for this patient?
A. Craniotomy
B. Burr hole drainage
C. Conservative management
D. Excision and biopsy

Ans. The key is B. Burr hole drainage.

120. A 49-year-old man first presented with increasing difficulty in swallowing. Several months later he developed weakness in his right foot. Now he can no longer feed himself, he chokes on food and has become confined to a wheelchair. What is the most likely diagnosis?
A. Cerebral tumor
B. Myasthenia gravis
C. Lambert-Eaton syndrome
D. Motor neuron disease
E. Cerebro-vascular disease

Ans. The key is D. Motor neuron disease. [The picture is of amyotrophic lateral sclerosis with bulbar onset, so it has very bad prognosis].

121. A patient with vesicles in the maxillary division of trigeminal nerve. Which area of mucus membrane will be involved?
A. Palate
B. Cheek
C. Cornea
D. Conjunctiva

Ans. The key is B. Cheek.

122. A 52-year-old man presents with visual hallucinations and features of cognitive impairment. What is the most likely diagnosis?
A. Frontotemporal dementia
B. Lewy body dementia
C. Delirium tremens
D. Alzheimer's disease
E. Huntington's disease

Ans. The key is B. Lewy body dementia. [Visual hallucinations and cognitive impairment are suggestive of Lewy body dementia. Hallucination is prominent feature of LBD than Alzheimers. Again cognitive impairment goes more with LBD while prominent early memory loss symptom suggests Alzheimer's].

123. A 24-year-old woman presents with tingling and twitching of her fingers followed by throbbing unilateral headache. What is the most likely diagnosis?
A. Tension headache
B. Migraine
C. Cluster headache
D. TIA
E. SAH

Ans. The key is B. Migraine. [The tingling and twitching of her fingers are aura and the migraine is with aura].

124. A man suffers from Herpes Zoster affecting his face. Which of the following mucos membrane is to be affected?
A. Cheek
B. Cornea
C. Conjunctiva
D. Oropharynx
E. Palate

Ans. The key is C. Conjunctiva.

125. A 24-year-old man after a head injury presents with difficulty dressing himself, difficulty in writing and inability to differentiate the fingers of his hand. Which part of the brain is most likely to be affected?
A. Frontal lobe
B. Parietal lobe
C. Temporal lobe
D. Occipital lobe
E. Brainstem

Ans. The key is B. Parietal lobe. [Dressing apraxia, agraphia and finger agnosia are features of parietal lobe lesions].

126. A patient had a stroke. Now, there is left sided weakness and right sided facial numbness. CT shows ischemic stroke. Which one would you prescribe?
A. Alteplase
B. Aspirin
C. Clopidogrel
D. Heparin
E. Warfarin

Ans. The key is A. Alteplase.

127. A 73-year-old stroke patient has been on aspirin for 2years. He now presents with epigastric pain and is asking for a treatment. What is the most appropriate management?
A. Laparotomy
B. NSAIDs
C. Omeprazole
D. Morphine
E. Tramadol

Ans. The key is C. Omeprazole.

128. A 32-year-old male complains of tremors everytime he tends to use his muscles and when he is pointing at objects. No complaints at rest. His father complained of similar problems. What is the most probable diagnosis?
A. Parkinsonism
B. Lithium toxicity
C. Thyrotoxicosis
D. Benign essential tremor

Ans. The key is D. benign essential tremor. [In benign essential tremor there is no rest tremor but tremor occurs during movement of the affected limb].

129. A 40-year-old woman with breast cancer has back pain which keeps her awake at night. She blames it on a gym session she had 2 weeks ago. She now has difficulty in climbing stairs. There is tenderness over the right thoracic spine. She has diminished fine touch and temp sensation in her right foot. What is the single most appropriate investigation?
A. Bone density scan
B. CT head
C. MRI spine
D. Nuclear bone scan
E. XR thoracolumbar spine

Ans. The key is C. MRI spine. [There is neurological deficit, so to exclude spinal involvement MRI is the single most appropriate investigation].

130. A 68-year-old man awoke to find that he is unable to close his left eye and dribbling saliva from the left angle of his mouth. What is the single most appropriate option?
A. Facial nerve
B. Glossopharyngeal nerve
C. Hypoglossal nerve
D. Optic nerve
E. Vagus nerve

Ans. The key is A. Facial nerve. [Features are suggestive of left sided facial nerve palsy].

131. A-63-year old male presents after having had a seizure. Examination: alert and oriented, inattention on the left side and hyperreflexia of the arm. What is the most probable diagnosis?
A. Cerebral tumor
B. Pituitary adenoma
C. Cerebellar abscess
D. Huntington's chorea
E. Parkinsonism

Ans. The key is A. Cerebral tumour.

132. A 67-year-old female presents with balance problems. Examination: nystagmus on left lateral gaze, a loss of the left corneal reflex and reduced hearing in the left ear. What is the most likely diagnosis?
A. Meniere's disease
B. Acoustic neuroma
C. Cerebral abscess
D. Pituitary tumor
E. Gentamicin

Ans. The key is B. Acoustic neuroma. [nystagmus, loss of corneal reflex, hearing loss, balance problem are well known feature of acoustic neuroma].

133. A 72-year-old male presents with acute confusion. He has been in the hospital for 2 weeks having been treated for a DVT. The nurses have noticed that he became increasingly drowsy. Examination: small scalp laceration, a GCS of 8 and bilateral up-going plantar response. What is the likely diagnosis?
A. Infection toxicity
B. Delirium tremens
C. Extradural hematoma
D. Subdural hematoma
E. Electrolyte imbalance

Ans. The key is D. Subdural hematoma. [Even trivial head trauma can lead to subdural hematoma. Presence of small scalp laceration, confusion and becoming increasingly drowsy Glasgow coma scale of 8 are suggestive of subdural hematoma].

134. A 69-year-old woman presents with a sudden onset of weakness of her right arm and leg. She is known to be hypertensive. There has been no headache, LOC (loss of consciousness), visual, speech or sensory symptoms. Examination: BP 180/90mmHg, pulse 100 and regular heart sounds, no carotid bruit. Higher mental function tests are normal. No apraxia or neglect. Speech, swallowing and sensation are normal. There are no visual field defects. There is a mild facial weakness sparing the forehead. The right arm and leg are flaccid and weak. Reflexes and tone are normal. There is a right extensor plantar response. What is the most likely cause of this pt's symptoms?

A. Cardioembolic stroke
B. Lacunar stroke
C. Right internal carotid artery atheroembolic stroke
D. Right internal carotid artery dissection
E. Right vertebral artery atheroembolic stroke

Ans. The key is B. Lacunar stroke. [Weakness of right arm and leg. So lesion is on left side. Hence C,D and E can not be the option. Also no AF or carotid artery disease and features are very much consistent with lacunar infarct].

135. A 74-year-old man has been admitted unconscious with no history. He has a GCS (Glasgow coma scale) of 6 and a dilated left puil which becomes insensitive to light. What is the single most likely diagnosis?
A. Extradural hematoma
B. Meningitis
C. Opioid OD
D. Pontine hemorrhage
E. SAH

Ans. The key is E. SAH. [Extradural hematoma is very rare in elderly and there occurs lucid interval; Fteatures are not consistent with meningitis. Opioid and pontine hemorrhage causes myosis. So likely diagnosis here is SAH].

136. A 27-year-old man presents to the emergency department with 2 days history of severe headache and pyrexia (38.9C). CT: petechial hemorrhage in the temporal and inferior frontal lobes. What is the most likely diagnosis?
A. Brain abscess
B. Meningococcal meningitis
C. Cerebral malaria
D. Herpes simplex encephalitis
E. New variant CID

Ans. The key is D. Herpes simplex encephalitis. [Petechial hemorrhage in the temporal and inferior frontal lobes are characteristic of Herpes simplex encephalitis].

137. A 44-year-old woman with memory loss, poor concentration and inability to recognize household projects. She has right-handed involuntary writhing movement. There is strong family history of similar complain. What is the single most likely diagnosis?
A. Pic’s dementia
B. Wilson’s disease
C. Huntington’s disease
D. HIV associated dementia
E. Fronto-temporal dementia

Ans. The key is C. Huntington's disease. [A person with Huntington's disease may appear to have a lack of drive, initiative and concentration. Involuntary jerking or writhing movements (chorea). Typical presentation is between 35-55 yrs].

138. A 54-year-old man has collapsed suddenly following a headache. He has hypertension and takes warfarin for prosthetic heart valve. GCS4 and dilated left pupil. What is the single most likely diagnosis?
A. Ant circulation stroke
B. Post circulation stroke
C. Intracerebral hemorrhage
D. Intracerebellar hemorrhage
E. Pontine hemorrhage.

Ans. The key is C. Intracerebral hemorrhage. [Headache, collapse, and warfarine use makes the diagnosis of intracerebral hemorrhage most likely].

139. A 71-year-old man with no previous history is brought to the emergency department by his wife who says he has become progressively more forgetful, tends to lose his temper and is emotionally labile. There is no history of infectious disease or trauma. What's the single most likely diagnosis?
A. Pic's dementia
B. Fronto-temporal dementia
C. Huntington's disease
D. Alzheimer's disease
E. Vascular dementia

Ans. The key is D. Alzheimer's disease. [Pic's dementia and fronto-temporal dementia are similar in some way (first personality change then dementia) but in pic's there is odd social behavior like violating etiquettes and says vulgar. In huntington's disease there is changes in personality, cognition and physical skills at the age of 35-45yrs and there is chorea. In vascular dementia there is multiple progressive infarcts and so neurological features may be associated with features of other vascular disease].

140. An 82-year-old woman has been admitted from a nursing home with dense hemiplegia and homonymous hemianopia. She is dysphasic. What vessel is most likely to be involved?
A. Ant cerebral artery
B. Mid cerebral artery
C. Post cerebral artery
D. Internal carotid artery
E. Post inf cerebellar artery

Ans. The key is B. Mid cerebral artery. [Hemiplegia, homonymous hemianopia, dysphasia these are common features of mid cerebral artery stroke].

141. A man brings his wife into the emergency department after finding her unconscious at home. He says at breakfast time she had complained of sudden severe headache. What is the most appropriate investigation?
A. MRI
B. XR
C. CT brain
D. Carotid Doppler

Ans. The key is C. CT brain. [Probable SAH. Among the given option most appropriate is CT brain].

142. A 34-year-old female presented with vomiting preceded by an occipital headache of acute onset. Examination: conscious and alert with photophobia but no neck stiffness. CT: normal. What is the most appropriate further management?
A. CT brain with contrast
B. Repeat CT brain in 24h
C. CSF exam
D. Cerebral angio
E. MRI brain

Ans. The key is C. CSF exam. [Probable subarachnoid hemorrhage. CT may not show any abnormality in early stage in some instances and in that case we shall do CSF examination 12 hours later to see xanthochromia].

143. A 19-year-old man with known history of OM (otitis media) presents with headache, lethargy, sweating and shivering. What is the single most likely diagnosis?
A. Furuncle
B. Meningitis
C. Myringitis
D. Nasopharyngeal tumor
E. OM

Ans. The key is B. Meningitis. [OM often can be a cause of intracranial extension leading to cerebral abscess or meningitis].

144. A 76-year-old woman presents with deep stroke 6 hours ago. What would the immediate treatment be?
A. Aspirin 75mg
B. Aspirin 300mg
C. Streptokinase
D. IV heparin
E. Dipyridamole 200mg

Ans. The key is B. Aspirin 300mg.

145. A 50-year-old man with a known history of stroke is unable to get out of his house because he can't find where the door is. He refuses help from his wife and says he is not blind. What is the single most likely defect?
A. Paracentral scotoma
B. Tunnel vision
C. Total blindness
D. Central scotoma
E. Cortical blindness

Ans. The key is E. Cortical blindness. [Cortical blindness is the total or partial loss of vision in a normal-appearing eye caused by damage to the brain's occipital cortex. Rarely, a patient with acquired cortical blindness may have little or no insight that they have lost vision, a phenomenon known as Anton–Babinski syndrome].

146. A camel rider sustained a kick to the lateral side of his right leg just below the knee caused by the camel stick. The site is slightly bruised and tender to touch. During physical examination, he is unable to either dorsiflex or evert the foot. There is loss of sensation over the front and outer half of the leg and dorsum of the foot. If these observations are the result of damage to a nerve bundle, which is the most likely nerve affected?
A. Lateral popliteal
B. Peroneal
C. Tibia
D. Sural

Ans. The key is B. Peroneal. [Inability of dorsiflex and foot eversion with sensory loss over front and outer half of leg and dorsum of foot are seen in peroneal nerve injury].

147. A 78-year-old man has collapsed. He has had a severe headache for 12 hours and had an URTI (upper respiratory tract infection) 3 days ago. He has a temperature 39.2C, pulse 122bpm, BP 84/60mmHg and RR 34bpm but his chest is clear. He has a GCS10 and some neck stiffness. He has been started on high-flow oxygen. What is the SINGLE most appropriate immediate management?
A. IV antibiotic; CT brain scan
B. IV antibiotic; LP
C. IV fluids; CT brain scan
B. IV fluids; IV antibiotic
E. IV fluids; LP

Ans. The key is D. IV Fluids; IV antibiotic [This is GMC sample question. GMC given key is D. IV fluids; IV antibiotic]. [Patient is in shock and having probable meningo-encephalitis. So at this point most appropriate immediate management is IV fluid and IV antibiotics].

148. A 32-year-old woman has had 3 episodes of slurred speech and 2 episodes of transient weakness of both legs in the past 5 years. Each episode has resolved in 3 months. What is the SINGLE most likely diagnosis?
A. Meningioma
B. Migraine
C. Multiple sclerosis
D. Stroke
E. Transient ischaemic attack

Ans. The key is C. Multiple sclerosis.

149. A 55-year-old chronic alcoholic with known hepatic cirrhosis has been on a heavy bout of alcohol the night before and was brought home by friends after falling several times in the pub. While being taken up the stairs to his bedroom he falls down the flight of 5 steps but sustains no obvious injuiry. His wife calls the emergency department the next day because she could not rouse him in the morning. He is brought in in a comatose state and both pupils appear dilated. Skull vault XR appears normal.
A. Hepatic encephalopathy
B. Intracerebral hematoma
C. Brain stem injury
D. Extradural hematoma
E. Chronic subdural hemorrhage
F. Despressed skull fracture
G. Vertibrobasilar ischemia
H. Acute subdural hematoma
I. SAH (sub arachnoid hemorrhage)
J. Severe migraine attack

Ans. The key is H. Acute subdural hematoma. [Acute subdural hemotoma, typical history of alcholics, falls and usually debilliated or elderly, hepatic cirrhosis increases coagulopathy and chances for bleed].

150. A young man develops nonfluent, effortful speech with dysarthria. He is able to understand speech. He fails to repeat the sentence. What would you do next?
A. XR skull
B. Non-contrast CT brain
C. Contrast CT brain
D. Contrast MRI optic nerves
E. 4-vessel cerebral angiogram
F. Single vessel cerebralangiogram
G. Cerebral angiography
H. MRI frontal lobe
I. MRI pituitary gland
J. MRI temporal lobe

Ans. The key is H. MRI Frontal lobe. (Brocas area). [Production (Broca's) dysphasia/aphasia - lesions are located in the left pre-central areas. This is a non-fluent or expressive aphasia since there are deficits in speech production, prosody and syntactic comprehension. Patients will typically exhibit slow and halting speech but with good semantic content. Comprehension is usually good. Unlike Wernicke's aphasia, Broca's patients are aware of their language difficulties. Prosody is the study of the meter of verse. Here it means the rhythm of speech.

Sensory (Wernicke's) dysphasia/aphasia - lesions are located in the left posterior perisylvian region and primary symptoms are general comprehension deficits, word retrieval deficits and semantic paraphasias. Lesions in this area damage the semantic content of language while leaving the language production function intact. The consequence is a fluent or receptive aphasia in which speech is fluent but lacking in content. Patients lack awareness of their speech difficulties. Semantics is the meaning of words. Semantic paraphrasia is the substitution of a semantically related but incorrect word].

151. Titubation is a feature of disease involving the?
   A. Cerebellum
   B. Basal ganglia
   C. Corpus callosum
   D. Pons
   E. Temporal lobe
   F. Occipital lobe
   G. Optic chiasma
   H. 3rd ventricle
   I. Hypothalamus
   J. Pituitary gland

Ans. The key is A. Cerebellum [Titubations (head/body nodding) mostly occur due to cerebellar lesions].

152. A 30-year-oldcaucasian man presented with a 2 weeks history of gradually worsening vision in his left eye. The patient had been seen once by a neurologist 2 years previously for flashes. At that time a head CT was normal. The patient was lost to follow up with the neurologist, but the flashes had continued for the 2 year period. The patient did not experience visual changes with activity or movement. The patient reported continued decreasing vision. Goldmann visual fields were done and showed a central scotoma. An MRI was done at this time and showed inflammation of the left optic nerve. A likely diagnosis is?
   A. Pseudotumor
   B. Orbital teratoma
   C. Optic neuritis
   D. Sarcoidosis
   E. Optic glioma
   F. Lymphangioma

G. Rhabdomyosarcoma
H. Retinal vascular shunts
I. Retinoblastoma
J. Mucormycosis

Ans. The key is C. Optic neuritis [Possible diagnosis is MS (multiple sclerosis). Scotoma, 2 year history, age race are suggestive except more in females than males].

153. A 23-year-old male presents to his GP 2 weeks after a RTA (road traffic accident) concerned about increasing anxiety lethargy and headache. At the time he had a CT brain after banging his head on the steering wheel, which revealed no abnormality. 6 months following this episode his symptoms have resolved. What did his original symptoms likely represent?
a. Conversion disorder
b. PTSD
c. Somatization disorder
d. GAD
e. Post-concussion syndrome

Ans. The key is E. Post concussion syndrome. [Post concussion syndrome is a set of symptoms that may continue for weeks, months, or a year or more after a concussion – a minor form of traumatic brain injury].

154. A 62year old woman has right---sided headaches with malaise, weight loss and depression. What is the single most appropriate investigation?
A. Temporal artery biopsy
B. ESR
C. Skull X---Ray
D. Nerve conduction studies
E. MRI imaging of brain.

Ans. The key is A. Temporal artery biopsy. [Right-sided (one sided) headache with malaise, weight loss and depression in 62 yrs elderly is highly suggestive of temoral arteritis for which “SINGLE” most appropriate investigation is temporal artery biopsy. If asked most appropriate answer would be ESR].

155. A 56-year-old man has sudden severe occipital headaches, drowsiness and vomiting. What is the single most initial appropriate investigation?
A. CT scan of brain
B. No investigation required
C. Carotid arteriography
D. Lumber puncture
E. Temporal artery biopsy

Ans. The key is A. CT scan of brain. [Sudden severe occipital headaches, drowsiness and vomiting are highly suggestive of SAH. Here single most initial appropriate investigation is CT scan of brain].

156. A 45-year-old woman has right sided headaches, nausea and visual disturbance. This lasted for 24 hours and she is fine. She was recently started on hormone replacement therapy. What is the single most initial appropriate investigation?
A. Temporal artery biopsy
B. ESR
C. No investigation
D. Nerve conduction studies
E. MRI imaging of the brain

Ans. The key is C. No investigation. [One sided headache lasting for 24 hours associated with nausea and visual disturbance without any focal neurological sign is highly suggestive of migraine. So for this "no investigation is needed"].

157. A 20-year-old woman with multiple sclerosis presents with blurring of vision and pain in the eye on movement. Where is the lesion?
A. Cerebellum
B. Optic discs
C. Optic nerve
D. Occipital lobe
E. Retina

Ans. The key is C. Optic nerve. [Optic neuritis is a well known feature of multiple sclerosis. Described lesion is optic neuritis! Optic neuritis is a demyelinating inflammation of the optic nerve. It is also known as optic papillitis (when the head of the optic nerve is involved) and retrobulbar neuritis (when the posterior of the nerve is involved)].

158. A 65-year-old man after an open cholecystectomy experiences numbness around the umbilicus. Which nerve is damaged?
A. Diaphragmatic nerve
B. T4 nerve
C. Intercostal nerve
D. L1-L2 nerve root
E. T10 nerve root

Ans. The key is E. T10 nerve root. [Dermatom pattern of T10 nerve: Traverses posteriorly from T10 to anteriorly through the umbilicus].

159. A 23-year-old lady with multiple sclerosis presents with ataxia, dysarthria and nystagmus. Which of the following is the most likely location of the lesion?
A. Spinal cord
B. Brain stem
C. Cerebellum
D. Cerebral cortex
E. Medulla oblongata

Ans. The key is C. Cerebellum. [Ataxia, dysarthria and nystagmus are well known features of cerebellar lesion].

6. HAEMATOLOGY

1. A 73-year-old woman has lymphadenopathy and splenomegaly. She feels well but has had recurrent chest infections recently. Choose the single most likely blood film findings?
   A. Atypical lymphocytes
   B. Excess of mature lymphocytes
   C. Plasma cells
   D. Multiple immature granulocytes with blast cells
   E. Numerous blast cells

Ans. The key is B. Excess of mature lymphocytes. [Diagnosis is CLL. Chronic lymphocytic leukemia is a type of cancer in which the bone marrow makes too many lymphocytes which looks mature but with defective function. Age of patient is usually above 50 yrs. There is lymhadenopathyand splenomegaly. Repeated chest infection points towards abnormal function of lymphocytes against infection. This is a blood and bone marrow disease that usually gets worse slowly. Therefore survival rates for chronic lymphocytic leukemia are good compared to many other cancers].

2. A 73-year-old male presents with enlarged cervical nodes. He has had recurrent infections over the last year. His conjunctiva is pale. Choose the single cell type you will find on the blood film.
   A. Granulocyte without blast cells
   B. Myelofibroblasts
   C. Plasma cells
   D. Mature lymphocytes

Ans. The key is D. Mature lymphocytes. [Diagnosis is CLL. Chronic lymphocytic leukemia is a type of cancer in which the bone marrow makes too many lymphocytes which looks mature but with defective function. Age of patient is usually above 50 yrs. There is lymhadenopathy and splenomegaly. Recurrent infectionspoints towards abnormal function of lymphocytes against infection. Pale conjunctiva is due to anaemia. This is a blood and bone marrow disease that usually gets worse slowly. Therefore survival rates for chronic lymphocytic leukemia are good compared to many other cancers].

3. A 37-year-old woman presents with fatigue. Examination: angular stomatitis, no koilonychea. Choose the single cell type you will find on the blood film.
   A. Macrocytes
   B. Microcytes
   C. Granulocytes wthout blast cells
   D. Blast cells

Ans. The key is A. Macrocytes. [This is macrocytic anaemia. The cause here is vitamin B12 or folate deficiency.Points in favour of Vit. B12 or folate deficiency: i) fatigue (anaemia) ii) angular stomatitis (can be seen in Vit. B12 or folate deficiency) iii) absence of koilonychea is against IDA (Iron Deficiency Anaemia)].

4. A 55-year-old male presents with malaise and tiredness. Exam: spleen approaching right iliac fossa, no lymphadenopathy. Choose the single cell type?
   A. Helmet shaped cell
   B. Sickle cell
   C. Granulocyte without blast cells
   D. Blast cells

Ans. The key is C. Granulocyte without blast cells. [Diagnosis is chronic myeloid leukemia. Increased number of matured granulocytes and huge splenomegaly are diagnostic features of CML].

5. A 6-year-old boy is brought to the hospital for a 3rd episode of sore throat in 1 month. He is found bleeding from gums and nose and has pale conjunctiva. What's the single cell type?
   A. Clumped platelets
   B. Microcytes
   C. Granulocyte without blast cells
   D. Blast cells
   E. Mature lymphocytes

Ans. The key is D. Blast cells. [Diagnosis is ALL. Following points favours the diagnosis of ALL: :i) Age-6yrs ii) recurrent infection (sorethroat) due to neutrpenia and abnormal lymphoblasts which cannot protect from infection iii) thrombocytopenia causing gum and nose bleeding. Iii) anaemia (pale conjunctiva) due to reduced red cell production from marrow occupation by blast cells. It cannot be confirmed unless we do bone marrow aspiration.]

6. A 5-year-old child presents with fever. He looks pale. His parents say he always feels tired. On exam: orchidomegaly& splenomegaly. Labs: WBC=1.7, Hgb=7.1, Plt=44. What is the diagnosis?
   A. ALL
   B. CLL
   C. AML
   D. CML
   E. Hodgkins

Ans. The key is A. ALL. [Normally in ALL CBC shows raised WBC, low RBC and low platelet; but it is also possible to all cell lines to be depressed, as is the presented case].

7. A 56-year-old woman is known case of pernicious anemia. She refuses to take hydroxycobalamin IM as she is needle shy. She asks for oral medication. Why will oral meds be not effective?
   A. Intrinsic factor deficiency

B. Malabsorption
C. Irritated gastric mucosa
D. Lack of gastric acidity

Ans. The key is A. Intrinsic factor deficiency. [Vitamin B12 cannot be absorbed without intrinsic factor].

8. A 61-year-old man underwent a surgery in which ileal resection had been done. He complains of fatigue, headache, and heart racing. Investigations: MCV 108fL, Hgb 8.9g/dL. What is the most likely diagnosis?
   A. Vit B12 deficiency
   B. Iron deficiency
   C. Folate deficiency
   D. Hemolytic anemia
   E. Anemia of chronic disease

Ans. The key is A. Vit B12 deficiency. [Vit B12 is absorbed mostly in ileum. As ileal resection is done B12 is not absorbed leading to megaloblastic anaemia].

9. A 57-year-old man presents with weight loss, tiredness, fever and abdominal discomfort. Examinations: spleen palpable up to the umbilicus. Lab investigations: WBC127, Hb8.7, Plt138. What is the most likely diagnosis?
   A. CML
   B. AML
   C. CLL
   D. AML
   E. Polycythemia

Ans. The key is A. CML. [Points in favour of CML: i) Age 57 years ii) weight loss iii) abdominal discomfort iv) anaemia v) fever vi) marked splenomegaly and high WBC count].

10. A 65-year-old woman presents with headache. She also complains of dizziness and tinnitus. She has recently realized she has visual problems. There is history of burning sensation in fingers and toes. On examination: splenomegaly, itchy after hot bath. Laboratory: RBC 87, Hgb 31.9, Plt 796. What is the diagnosis?
    A. CML
    B. CLL
    C. Polycythemia vera
    D. Myelofibrosis
    E. NHL

Ans. The key is C. Polycythemia vera. [Points in favour: i) hyperviscosity symptoms (headache, dizziness, tinnitus, visual problem) ii) pruritus, typically after a hot bath, iii)splenomegaly iv) RBC 87, Hb 31.9, Plt796].

11. A woman has pernicious anemia. She has been prescribed parenteral vitamin B12 treatment but she is needle phobic. Why is oral treatment not preferred for this patient?
    A. IM B12 is absorbed more
    B. Intrinsic factor deficiency affects oral B12 utilization
    C. IM B12 acts faster
    D. IM B12 needs lower dosage
    E. Pernicious anemia has swallowing difficulties

Ans. The key is B. Intrinsic factor deficiency affects oral B12 utilization.

12. A 53-year-old man presents complaining of weight loss, lethargy, increasing abdominal discomfort and gout for the past year. Examination: spleen palpated 5cm below left costal margin, no fluid wave. CBC: Hgb 10.5g/dL, WBC 200, – 85% neutrophils, platelets 100, Na+ 140mmol/L, K+ 4mmol/L, creatinine 151umol/L, urea 7mmol/L. Serum B12 increased. Philadelphia chromosome +ve. What is the most likely diagnosis?
    A. CML
    B. CLL
    C. AML
    D. ALL
    E. Lymphoma

Ans. The key is A. CML. [Points in favour of CML: i) weight loss ii) lethargy iii) abdominal discomfort iv) splenomegaly v) gout (Elevated uric acid and vitamin B12 levels are found in 25% of patients of CML). A blood picture is suggestive and +ve Philadelphia chromosome is diagnostic].

13. A 35-year-old woman has had bruising and petechiae for a week. She has also had recent menorrhagia but is otherwise well. Blood: Hb 11.1, WBC 6.3, Platelet 14. What is the single most likely diagnosis?
    A. Acute leukemia
    B. Aplastic anemia
    C. HIV infection
    D. ITP (Idiopathic or Immune Thrombocytopenic Purpura)
    E. SLE

Ans. The key is D. ITP. [As the patient is otherwise well acute leukemia, HIV and SLE is unlikely. Normal wbc count excludes aplastic anemia. So likely diagnosis is ITP. Isolated thrombocytopenia with bruising and petichiae and menorrhagia are strong indicators of ITP. Idiopathic thrombocytopenic purpura, is a type of thrombocytopenic purpura defined as an isolated low platelet count with a normal bone marrow in the absence of other causes of low platelets.Two distinct clinical syndromes manifest as an acute condition in children and a chronic condition in adults. The acute form often follows an infection and spontaneously resolves within two months. Chronic immune thrombocytopenia persists longer than six months with a specific cause being unknown.ITP is an autoimmune disease with antibodies detectable

against several platelet surface structures and the immune system destroys these antibody bearing platelets].

14. A 35-year-old lady is admitted with pyrexia, weight loss, diarrhea and her skin is lemon yellow in color. CBC = high MCV. What is the most probably diagnosis?
    A. Aplastic anemia
    B. Pernicious anemia
    C. Leukemia
    D. ITP
    E. Lymphoma

Ans. The key is B. Pernicious anemia. [It may be graves disease with pernicious anemia. Lemon yellow pallor occurs in pernicious anemia. Both are autoimmune disease which favours this association. Hyperthyroidism may cause persistently raised body temperature, weight loss and diarrhea. In pernicious anemia there is lack of intrinsic factor which is needed to absorb vitamin B12 and as this vitamin is not absorbed in pernicious anemia there occurs macrocytic anemia that leads to high MCV].

15. A 5-year-old child was admitted with history of feeling tired and lethargic all the time, bleeding gums and sore throat since the last 3months. Exam: hepatosplenomegaly. What is the most probable diagnosis?
    A. ALL
    B. AML
    C. CML
    D. CLL
    E. Lymphoma

Ans. The key is A. ALL. [Commonest leukemia in children is ALL. Bleeding gums (low platelet), feeling tired and lethargic, sorethroat, hepatosplenomegally all are well known features of ALL. Acute lymphoblastic leukaemia (ALL) is a type of blood cancer that starts from young white blood cells called lymphocytes in the bone marrow. Adults and children can get it but it is most often diagnosed in younger people. Chemotherapy is the main treatment. Some people need to have a stem cell transplant].

16. A 65-year-old man presents with back pain. Examinations: splenomegaly and anemia. Blood: WBC 22,Hgb 10.9, Platelet 100, ESR 25. He has been found to have Philadelphia chromosome. What is thesingle most likely diagnosis?
    A. ALL
    B. AML
    C. CML
    D. CLL
    E. Lymphoma

Ans. The key is C. CML. [anaemia, raised WBC count, low platelet (platelet may be variable) are known features of CML, splenomegaly (particularly if massive) is very suggestive of CML and Philadelphia chromosome is characteristic of CML].

17. A 15-year-old girl was admitted with anemia, chest infection and thrombocytopenia. She was treated and her symptoms had regressed. She was brought again with fever and the same symptoms a few days later. She also seems to have features of meningitis. What is the most likely diagnosis?
    A. AML
    B. ALL
    C. Aplastic anemia
    D. CML
    E. CLL

Ans. The key is B. ALL. [The age supports the diagnosis of ALL along with the given clinical picture. Similar picture can be seen in aplastic anemia but meningitis supports more towards ALL (leukemic meningitis)].

18. A 5-year-old boy has cough and swelling at the knee after falling on the ground with rashes on the buttocks which are non-blanching. PT 13, APTT 71, Hgb 11, WBC 8, Platelets 200. Choose the most likely diagnosis?
    A. NAI
    B. Hemophilia
    C. HSP
    D. Osler weber reindu syndrome
    E. Von-Willebrand disease

Ans. The key is B. Hemophilia. [In Von willebrands disease usually there is no hemarthrosis (except in type 3) and in hemophilia no nonblanching rash (there may be bruising). isolated rise in APTT is highly suggestive of hemophilia (given case). This is an ill defined question and likely diagnosis is hemophilia].

19. A 40-year-old lady who has been a smoker since she was a teenager has the following blood result: Hb 19. What hormone should you check?
    A. Aldosterone
    B. Cortisol
    C. Erythropoietin
    D. T4
    E. TSH

Ans. The key is C. Erythropoetin. [Smoking causes raised carboxyhemoglobin level causing hypoxemia and raised erythropoeitin which leads to raised hemoglobin level (secondary polycythemia)].

20. A 55-year-old man presents with hypertension. He complains of headache and visual disturbances. He also reports itching after a hot bath and burning sensation in finger and toes.

His face is flushed red. Per examination: mild splenomegaly. Investigation: Hb=20g/dl, WBC=20, platelet500, EPO (erythropoietin) normal. What is the likely diagnosis?
A. Myelofibrosis
B. Polycythemia rubra vera
C. Essential thrombocythemia
D. CML
E. CLL

Ans. The key is B. Polycythemia rubra vera. [Raised hemglobin, raised cell counts and normal erythropoeitine along with symptoms of hyperviscosity like headache and associated hypertension are diagnostic of polycythemia rubra vera].

21. A 12-year-old boy complains of acute development of purpura on the dependent areas of his body 2weeks after a URTI. The purpura doesn't blanch on pressure, tests reveal: Hb 12, platelets 50, WBC 5, Bleeding time 10mins, APTT 40seconds, PT 1.02. What is the most likely diagnosis?
A. ITP
B. TTP
C. Von Willebrand's disease
D. Hemophilia A
E. Hemophilia B

Ans. The key is A. ITP. [Isolated thrombocytopenia and H/O prior URTI with development of purpura on the dependent areas of the body favours the diagnosis of ITP. (In ITP BT is prolonged which is present here.)].

22. A young man who has no past medical history presented with jaundice, low Hgb, reticulocytes 8% and other indices within normal limit but occasional spherocytes were seen on blood film. What is the single most appropriate investigation?
A. G6PD enzyme assay
B. Direct coombs test
C. Repeat blood film
D. Indirect coombs test
E. BMA

Ans. The key is B. Direct Coombs test. [The direct Coombs test is used to determine the cause of hemolytic anemia, like is it due to antibodies attached to RBCs which are seen in autoimmune-related hemolytic anemia].

23. A 55-year-old male after gastrectomy developed anemia. His MCV106fl. Examination: loss of proprioception and vibration sense. What is the most likely diagnosis?
A. IDA (iron deficiency anemia)
B. Folate def
C. Vit B12 def
D. Anemia of chronic disease

Ans. The key is C. Vit B12 def. [gastrectomy –> deficiency of intrinsic factor –> Vitamin B12 deficiency leading to macrocytic anemia and resulting subacute combined degeneration of cord causing loss of proprioception and loss of vibration sense].

24. A 4-year-old boy presents with recurrent episodes of self limiting spontaneous bleeding. Coagulation test: PT normal, bleeding time normal, APTT prolonged, Factor VIII decreased. His father and uncle suffer from a similar illness. What is the most likely diagnosis?
    A. Hemophilia A
    B. Hemophilia B
    C. Von willebrand's disease
    D. ITP
    E. TTP

Ans. The key is A. Hemophilia A. [Prolonged APTT and decreased factor VIII points towards the diagnosis of hemophilia A. In hemophilia B there is factor IX deficiency. Haemophilia A is a genetic deficiency in clotting factor VIII, which causes increased bleeding and usually affects males. In the majority of cases it is inherited as an X-linked recessive trait].

25. A young boy has a history of epistaxis. CBC normal, except APTT 47s. What is the most likely diagnosis?
    A. Hemophilia
    B. ITP
    C. Sickle cell
    D. HUS
    E. Thalassaemia

Ans. The key is A. Hemophilia. [A young boy with epistaxis and prolonged APTT is a probable case of hemophilia. Factor VIII and IX should be offerred to confirm the diagnosis].

26. A 50-year-old lady has been suffering from chronic RA (rheumatoid arthritis) and is on methotraxate and naproxen. Her CBC shows microcytic anemia. What is the most likely cause?
    A. Anemia of chronic disease
    B. GI hemorrhage
    C. Menorrhagia

Ans. The key is B. GI hemorrhage. [Anemia of chronic disease is mostly normocytic and methotrexate causes folate deficiency which may lead to macrocytosis. So for this microcytic anemia NSAIDs induced GI hemorrhage is the most likely cause].

27. A 36-year-old woman presented with massive bleeding from multiple sites. Laboratory investigations: fibrin degradation products: +++, platelet 30, bleeding time prolonged, PT prolonged, APTT prolonged. What is the most likely diagnosis?
    A. Hemophilia
    B. DIC

C. ITP
D. Factor V leiden
E. Warfarin

Ans. The key is B. DIC. [Disseminated intravascular coagulation (DIC) is characterized by systemic activation of blood coagulation, which results in generation and deposition of fibrin, leading to microvascular thrombi in various organs and contributing to multiple organ dysfunction syndrome (MODS). Consumption of clotting factors and platelets in DIC can result in life-threatening hemorrhage. Usual lab reports are i) Platelets: Typically, moderate-to-severe thrombocytopenia is present in DIC. ii) Bleeding time prolonged iii) Global clotting times: (ie, activated partial thromboplastin time [aPTT] and prothrombin time [PT]) are typically prolonged. iv) Assay for D-dimer or FDPs: elevated].

28. A 51-year-old man has become increasingly fatigued for the past 10months. Per examination: no abnormal findings. Laboratory investigations: Hgb9.2, Hct27.9%, MCV132fl, platelet 242, WBC7.59. Which of the following morphologic findings is most likely to be present on examination of his peripheral blood smear?
    A. Hypersegmented neutrophils
    B. Nucleated RBC
    C. Blasts
    D. Hypochromic, microcytic RBC
    E. Schistocytes

Ans. The key is A. Hypersegmented neutrophils. [Only anemia with macrocytosis is with normal examination findings makes Megaloblastic aneamia to be most likely cause where PBF shows hypersegmented neutrophils].

29. A 55-year-old female presented with anemia and dysphagia. There is a feeling of something stuck in the throat. The esophagus can't be negotiated beyond the crico-pharynx. What is the most probable diagnosis?
    A. Foreign body
    B. Plummer vinson syndrome
    C. Pharyngeal carcinoma
    D. Barret's esophagus
    E. Esophageal carcinoma

Ans. The key is B. Plummer Vinson syndrome. [The picture fits two D/D. 1. Plummer Vinson syndrome 2. Oesophagial carcinoma. Lower oesophagial stricture is more common in Ca. So presenting case is likely a case of Plummer Vinson syndrome. It can be differentiated by the type of anemia. If it is IDA diagnosis is Plummer Vinson syndrome].

30. A 51-year-old woman presents with painful tongue and complains of tiredness. She is pale and has angular stomatitis and a smooth red tongue. There is no koilonychea. Choose the single cell type you will find on the blood film.
    A. Numerous blast cells

B. Oval macrocytes
C. Spherocytes
D. Microcytic hypochromic
E. Mexican hat cells
F. Erythrocytes

Ans. The key is B. oval macrocytes. [Macrocytes are two types, round and oval. Oval macrocytes are seen in megaloblastic anemia which occurs due to Vit B12and/or folic acid deficiency. Glossitis (painful tongue), angular stomatitis and smooth tongue are though characteristic feature of iron deficiency but are also known features of megaloblastic anemia. Absence of koilonychea also favours megaloblastic anemia].

31. A 22-year-old Greek man presents with rapid anemia and jaundice following treatment of malaria. He is noted to have Heinz bodies. Choose the single most likely cause from the given options?
    A. G6PD deficiency
    B. Anemia of chronic disease
    C. Pernicious anemia
    D. IDA
    E. Vit B12 deficiency

Ans. The key is A. G6PD deficiency. [G6PD (glucose-6-phosphate dehydrogenase) deficiency exacerbated by administration of oxidant drugs (e.g., primaquine, dapsone, quinidine). In active G6PD deficiency, Heinz bodies can be seen in red blood cells on a blood film].

32. A 40-year-old woman presented with generalized itching and tiredness for few months. She gave a history of heavy menstrual periods. Examination: pallor. What is the single most likely causative factor?
    A. IDA
    B. Lichen planus
    C. Dermatitis herpitiformis
    D. Eczema
    E. Uremia

Ans. The key is A. IDA. [IDA is one of the causes of generalized pruritus. Heavy periods, pallor and tiredness further supports the diagnosis].

33. A 50-year-old man presents with itching after hot shower with dizziness, chest pain after exercise. Exam: splenomegaly. What is the single most likely causative factor?
    A. ALL
    B. Lymphoma
    C. Polycythemia
    D. Scabies
    E. Eczema

Ans. The key is C. Polycythemia. [Itching after hot shower; dizziness and angina due to hyperviscosity and splenomegaly are well known features of polycythemia].

34. A middle aged lady presented with fever, altered sensorium, bleeding gums and jaundice. Laboratory investigations: deranged renal function tests, normal PT/APTT, fragmented RBCs and low platelets. What's the most likely diagnosis?
    A. Cholesterol emboli
    B. HUS (hemolytic uremic syndrome)
    C. TTP (thrombotic thrombocytopenic purpura)
    D. Hepatorenal syndrome
    E. Sepsis

Ans. The key is C. TTP. [Fever and altered sensorium suggest the diagnosis of TTP. Also in TTP there is fragmented RBC which is present here(Thrombotic thrombocytopenic purpura leads to increased amounts of large von Willebrand factor which then attach to activated platelets and mediate further platelet aggregation. Platelets end up being removed and the resulting fibrin strand formation remains.These fibrin strands along with the stress from the blood flow cause fragmentation of the red blood cells, leading to schistocyte formation. In TTP, a schistocyte count between 3–10% is common, but >1% is suggestive of the disease.) There is low platelet counts].

35. Patient with low hemoglobin, MCV 76, angular stomatitis, red tongue, and koilonychia. What is the most probable diagnosis?
    A. Folate deficiency anemia
    B. B12 deficiency anemia
    C. Iron deficiency anemia
    D. Vit E deficiency anemia
    E. Hemolytic anemia

Ans. The key is C. Iron deficiency anemia. [Low MCV (range for MCV is 80-96 fL) , angular stomatitis, red tongue and koilonychia are characteristic of iron deficiency anemia].

36. A 48-year-old nulliparous woman feels tired all the time. Her periods are regular but have always lasted for at least 10days. Choose the single most appropriate intial investigation?
    A. High vaginal swab
    B. Serum hemoglobin concentration
    C. TFT
    D. None
    E. Abdominal US

Ans. The key is B. Serum hemoglobin concentration. [Feeling tired all the time and prolonged period suggest anemia. So serum Hb should be done initially].

37. A previously well 15-year-old girl had an acute onset of fever, sweating, bruising and petechiae. A blood count showed: Hemoglobin 63g/L, WBC 1.1, Neutrophils 0.1, platelets14. No abnormal

white cells were seen on the blood film. She was transfused and given IV antibiotics and her condition improved. 3weeks later her blood count has returned to a similar picture. What is the SINGLE most likely underlying diagnosis?
A. ALL
B. AML
C. Aplastic anemia
D. CML
E. Pernicious anemia

Ans. The key is C. Aplastic Anaemia. [The age of the patient and pancytopenic picture give us a clinical diagnosis of Aplastic anemia. Normal WBC morphology rules out ALL, AML and pernicious anaemia while the age rules out CML as a diagnosis].

38. An anemic young man is found to have a macrocytosis of 90%. The most likely cause is?
    A. Zieve's syndrome
    B. Thalassemia minor
    C. Chronic renal disease
    D. IDA
    E. Folate def
    F. Chronic liver disease
    G. HUS
    H. Cytotoxic chemotherapy
    I. Phenytoin

Ans. The key is E. Folate deficiency.[Zieve's syndrome is an acute metabolic condition that can occur during withdrawal from prolonged alcohol abuse. It is defined by hemolytic anemia (with spur cells and acanthocytes), hyperlipoproteinaemia (excessive blood lipoprotein), jaundice, and abdominal pain. The underlying cause is liver delipidization].

39. A patient presented with the following blood work,
    MCV: Decreased
    Serum ferritin: Decreased
    Totaliron binding capacity: Increased
    Serum iron: Decreased
    Marrow iron: Absent.
    What is your diagnosis?
    A. Thalassemia trait
    B. Hypoparathyroidism
    C. Hereditary sideroblastic anemia
    D. Protein energy malnutrition
    E. Chronic renal failure
    F. Anemia of chronic disease
    G. Acute blood loss

H. IDA
I. Oral contraceptives
J. Megaloblastic anemia

Ans. The key is H. Iron deficiency Anemia (IDA). [S/S pallor, koilonychia,angular cheilitis, atrophic glossitis, IN marked Anemia (Cardiac enlargemnet,FlowMurmurs,ankle oedema and heart failure)

Investigation: FBC : shows microcytic hypochromic anemia, Serum ferrtitin Level reduced, normal 12-15 mcg/L, (serum ferritin is falsely raised during infections), Anisocytosis and poikilocytosis. Total iron binding capacity is increased.

Treatment: Iron supplememtation with B12 and folic acid].

40. A 35-year-old 1st time donor suddenly passes out as she is donating blood. Which of the following steps would be least useful in managing this adverse event?
    A. Ensure donor is adequately hydrated and has not skipped a meal
    B. Elevating the donor's legs as this is usually due to a vasovagal syncope
    C. Haemoglobin of the donor meets the minimum requirement for donation
    D. The donation is usually continued along with simultaneous normal saline infusion.
    E. The donor should be encouraged to mobilise after they have recovered

Ans. The key is C. Haemoglobin of the donor meets the minimum requirement for donation. [If syncope then we can continue donation giving simultaneous normal saline to the donor.(option D). Option C. Haemoglobin of the donour meets the minimum requirement for donation [as it is routinely done in every doner prior to donation and therefore this has no impact on syncope].

41. INR:Normal, APTT:Elevated, Thrombin time:Elevated, Platelet count:Normal, Bleeding time: Normal. A likely aetiology is?
    A. Waldenström'smacroglobulinaemia
    B. Heparin
    C. Sézary cell leukaemia
    D. Pelger-Hüet anomaly
    E. von Willebrand's disease
    F. Haemophilia
    G. HIV infection
    H. DIC
    I. Acanthocytosis
    J. Vit K deficiency

Ans. The key is B. Heparin.

42. A 4-year-old boy has the sudden onset of bone pain. He begins experiencing bleeding of his gums and frequent bloody noses. His mother takes him to his pediatrician. Exam: he is pale and

has numerous petechiae over his body, with lymphadenopathy and hepatosplenomegaly. He has WBC=100,000mm and numerous circulating blast cells. He is admitted to the hospital. A bone marrow biopsy shows 35% blast cells. Which of the following is most likely?

A. Mantle cell lymphoma
B. Infectious lymphocytosis
C. Waldenstrom's macroglobulinemia
D. CML
E. CLL
F. Burkitt lymphoma
G. ALL
H. Mycosis fungoides
I. Hairy cell leukemia
J. AML

Ans. The key is ALL. [ALL is more common in childhood while AML in adults. Features are very similar so to differentiate clinically is very difficult. Diagnosis can be confirmed by bone marrow biopsy].

43. A 2-month-old baby develops a life-threatening anemia. Blood tests show a normal serum iron, ferritin and TIBC. Hemoglobin electrophoresis reveals a markedly decreased Hemoglobin A content and an increased hemoglobin F content. This baby's anemia is likely to be secondary to?
    A. Failure of alpha chain production
    B. Failure of beta chain production
    C. B12 Deficiency
    D. Lead poisoning
    E. IDA
    F. Presence of hemoglobin S
    G. Presence of hemoglobin M
    H. Deficiency of folate
    I. Bone marrow failure
    J. Inability to manufacture heme

Ans. The key is B. Failure of beta chain production.

44. A boy with a history of recurrent swollen tender joints on both knees and elbows and not able to participate in sports. What is the investigation of choice to diagnose?
    A. RF/ASO titre
    B. Clotting factor
    C. ESR

Ans. The key is B. Clotting factor. [Haemarthrosis causing disability makes the likely diagnosis ofhemophilia].

45. A 57-year-old man recently underwent prostatectomy. Seven days later he develops pain and swelling of his left leg. This was later confirmed as deep venous thrombosis and he has to be started on warfarine. What is the optimal INR for this patient?

A. <1
B. 1 – 2
C. 2 – 3
D. 3 – 5
E. >5

Ans. C. 2 – 3

46. A 70-year-old man has back pain, anemia and weight loss of gradual onset. In addition to renal failure, he has hypercalcemia. What is the most appropriate investigation?
A. ANCA
B. Bone marrow aspirate
C. Creatinine clearance
D. Culture of MSU specimen
E. Cystoscopy

Ans. B. Bonemarrow aspirate. [Features are suggestive of multiple myeloma. Bone marrow aspirate will show plasma cell infiltrate (60% or more plasma cells in bone marrow)].

COMPLETED

7. GENITOURINARY SYSTEM

1. A 32-year-old man presented with painless hematuria. He is hypertensive but the rest of the exam is unremarkable. What is the most likely diagnosis?
   A. Polycystic kidneys
   B. Ca bladder
   C. Ca prostate
   D. TTP
   E. HUS

Ans. The key is A. Polycystic kidneys. [Autosomal dominant polycystic kidney disease (ADPKD) is a multisystemic and progressive disorder characterized by cyst formation and enlargement in the kidney and other organs (eg, liver, pancreas, spleen). Up to 50% of patients with ADPKD require renal replacement therapy by 60 years of age. In younger cysts may be smaller to palpate. Renal ultrasound is used to diagnose the condition].

2. In chronic renal failure, main cause of Vit D deficiency is the failure of:
   A. Vit D absorption in intestines
   B. 25 alpha hydroxylation of Vit D

C. Excess Vit D loss in urine
D. 1 alpha hydroxylation of Vit D
E. Availability of Vit D precursors

Ans. The key is D. 1 alpha hydroxylation of Vit D. [There are 3 steps in the synthesis of vitamin D. i) Cholecalciferol in the skin from 7-dehydrocholesterol under the action of ultraviolet light. ii) Hydroxylation in the liver of cholecalciferol to 25-hydroxycholecalciferol. iii) Hydroxylation in the kidneys (1 alpha hydroxylation by enzyme 1-alphahydroxylase) of 25-hydroxycholecalciferol to calcitriol (1,25-dihydroxyvitamin D3)].

3. A 35-year-old man presented with hematuria, abdominal swelling and has a BP of 190/140. What is the most diagnostic investigation?
   A. Cystoscopy
   B. USG
   C. CT
   D. Renal biopsy
   E. Urine analysis

Ans. The key is B. USG. [The diagnosis is ADPKD.Autosomal dominant polycystic kidney disease (ADPKD) is a genetic disorder characterized by the growth of numerous cysts in the kidneys. It is the most common inherited disorder of the kidneys. Symptoms usually develop between the ages of 30 and 40, but they can begin earlier, even in childhood.Haematuria, abdominal swelling and raised BP are the most common findings. USG diagnostic criteria is: Age 18 – 39 yrs>2 unilateral or, bilateral cysts, 40 – 59 yrs>3 cysts in each kidney, >60 yrs>4 cysts in each kidney].

4. A 15-year-old male has bilateral ankle edema. His BP is 110/70mmHg and urinalysis shows protein++++. What is the most likely diagnosis?
   A. HUS
   B. IgA nephropathy
   C. Membranous GN
   D. Minimal change GN
   E. Nephrotic syndrome

Ans. The key is D. Minimal change glomerulonephritis. [Points in favour of minimal change glomerulonephritis are i) Age 15 ii) Ankle oedema iii) Normotension iv) Heavy proteinuria.Treatment of choice is steroid (prednisolon). In case of failure of steroid or frequent relapse (>3) cyclophosphamide should be given].

5. A 15-year-old boy has a soft painless swelling in the left scrotum, blue in color and can be compressed. What is the most appropriate next step?
   A. Analgesia
   B. Antibiotic
   C. Biopsy
   D. Immediate surgery

E. Reassurance

Ans. The key is E. Reassure. [This is varicocele. If asymptomatic nothing needs to be done].

6. A 15-year-old boy presents with generalized edema. His urinalysis reveals protein +++, eGFR 110. What is the most likely diagnosis?
   A. IgA nephropathy
   B. Membranous nephropathy
   C. Minimal change disease
   D. PSGN
   E. Lupus nephritis

Ans. The key is C. Minimal change disease. [Points in favour: i) Age 15 yrs ii) Generalized oedema iii) Protein in urine +++ vi) Normal eGFR of 110 (Normal range- 90 to 120 mL/min)].

7. A man presents with scrotal swelling, the swelling is cystic and is non-tender. It is located in the upper pole of the posterior part of the testis. What is the most likely diagnosis?
   A. Epididymal cyst
   B. Testicular ca
   C. Hydrocele
   D. Teratoma
   E. Testicular torsion

Ans. The key is A. Epididymal cyst. [the location of upper pole of the posterior part of testis is the common site for epididymal pathology].

8. 46-year-old man, known case of chronic GN presents to OPD. He feels well. BP 140/90mmHg. Urine dipstick: protein ++, blood ++ and serum creatinine 106µmol/L. Which medication can prevent the progression of this disease?
   A. ACEi
   B. Diuretics
   C. Cytotoxic meds
   D. Longterm antibiotics
   E. Steroids

Ans. The key is A. ACEI. [renal impairment is delayed by ACEI].

9. A 2-year-old patient presents with colicky pain which radiates from loin to groin. He complains of similar episodes in the past. Investigation has been done and 7mm stone was found in the ureter. What is the most appropriate management?
   A. Percutaneous nephrolithotomy
   B. Open surgery
   C. Ureteroscopy or laser
   D. Conservative treatment

E. ESWL

Ans. The key is E. ESWL.[Given its minimally invasive features, extracorporeal shock wave lithotripsy (ESWL) has become a primary mode of treatment for the pediatric patients with reno-ureteral stones].

10. A 34-year-old African-caribbean man with a history of sarcoidosis has presented with bilateral kidney stones. What is the most likely cause for this patient's stones?
    A. Hypercalcemia
    B. Hyperuricemia
    C. Diet
    D. Recurrent UTIs
    E. Hyperparathyroidism

Ans. The key is A. Hypercalcemia. [Hypercalcemia in sarcoidosis is due to the uncontrolled synthesis of 1,25-dihydroxyvitamin D3 by macrophages. 1,25-dihydroxyvitamin D3 leads to an increased absorption of calcium in the intestine and to an increased resorption of calcium in the bone].

11. A 15-year-old boy presents with testicular pain for 2days. There is no history of trauma. Examination: temp=38.5C, right hemi-scrotum tenderness. What is the single most appropriate management?
    A. Give antibiotics
    B. Give analgesia
    C. Reassure
    D. US scrotum
    E. Exploratory surgery

Ans. The key is A. Give antibiotics. [This is a case of epididymoorchitis. Testicular pain with fever without history of trauma points towards the diagnosis of epididymoorchitis].

12. A 58-year-old lady presented with urinary incontinence. She looks anxious for her condition. Urine culture is sterile. Her urodynamic study is normal. What is the next step?
    A. Antibiotics
    B. Topical estrogen
    C. Systemic estrogen
    D. Duloxetine
    E. Pelvic floor exercise

Ans. The key is E. Pelvic floor exercise. [Diagnosis is stress incontinence. Stress incontinence is usually the result of the weakening of or damage to the muscles used to prevent urination, such as the pelvic floor muscles and the urethral sphincter. Pelvic floor exercise improves the symptoms].

13. A 44-year-old man presents with periorbital and pedal edema. 24hours urine shows 8g of protein/day and serum cholesterol 7mmol/L. Renal biopsy results are awaited. What would be the most likely diagnosis?

A. Minimal change disease
B. Glomerulonephropathy
C. Membranous glomerulonephropathy
D. FSGS
E. IgA nephropathy
F. Mesangiocapillary

Ans. The given key is C. Membranous glomerulonephritis. [This is nephrotic syndrome. It is characterized by proteinuria more than 3gm/24hours, low albumin, edema and high cholesterol. Most common causes of nephrotic syndrome in adults are membranous glomerulonephropathy and FSGS (focal segmental glomerulosclerosis)].

14. A 47-year-old man comes to the GP with a swelling in his left groin which disappears on lying down. The swelling was bluish in color and felt like a bag of worms. He also complains of a mass in the left loin along with hematuria occasionally. What could be the possible diagnosis?
    A. Left sided RCC
    B. Varicosity 2nd to liver disease
    C. Testicular tumor
    D. UTI
    E. IVC obstruction

Ans. The key is A. Left sided RCC (renal cell carcinoma). [Most common secondary cause of left sided varicocele is RCC. Newly diagnosed varicocele over the age of 40yrs are very much suggestive of RCC. Varicocele is common on left side as left testicular veins drain to the left renal vein, while the right testicular vein drain directly into IVC].

15. A man has a BP of 160/90mmHg, proteinuria++. KUB US shows kidneys are equally reduced in size with smooth borders and normal pelvic calyceal system. What is the cause of hypertension in the patient?
    A. Chronic glomerulonephritis
    B. Chronic pyelonephritis
    C. Bilateral renal artery stenosis
    D. Essential HTN
    E. Polycystic kidney

Ans. The key is C. bilateral renal artery stenosis. [Renal artery stenosis is the narrowing of the renal arteries, most often caused by atherosclerosis or fibromuscular dysplasia. This narrowing of the renal artery can impede blood flow to the kidneys, resulting in renovascular hypertension – a secondary type of high blood pressure].

16. A 40-year-old male with pre-existing glomerulonephritis having proteinuria and hematuria suddenly deteriorates and presents with oliguria and serum K+ 7.8mmol/L, urea 13mmol/L, Creat 342µmol/L, GFR 19mL/hour. The best management would be?
    A. Calcium supplement

B. Calcium resonate enema 30g
C. 10units insulin with 50% dextrose
D. Nebulized salbutamol
E. 10ml of 10% calcium gluconate
F. Hemodialysis urgent

Ans. The key is F. Hemodialysis urgent. [Next or most appropriate is E. 10ml of 10% calcium gluconate; but best or definitive treatment is hemodialysis].

17. A 22-year-old sexually active male came with 2days history of fever with pain in scrotal area. Examination: scrotal skin is red and tender. What is the most appropriate diagnosis?
    A. Torsion of testis
    B. Orchitis
    C. Inguinal hernia
    D. Epididymo-orchitis

Ans. The key is D. Epididymo-orchitis. [In epididymo-orchitis there should be fever, elevation of testes reduces pain (positive prehn sign), In torsion testis lies at a higher level. In torsion urinalysis negative but in epididymo-orchitis it is positive. Epididymo-orchitis usually occurs in sexually active man].

18. A 32-year-old woman has severe right sided abdominal pain radiating into the groin which has lasted for 3hours. She is writhering in pain. She has no abdominal signs. What is the most likely cause of her abdominal pain?
    A. Appendicitis
    B. Ruptured ectopic pregnancy
    C. Salpingitis
    D. Ureteric colic
    E. Strangulated hernia

Ans. The key is D. Ureteric colic. [Abdominal pain radiating to groinindicates stone at lower ureter. [i) Pain from upper ureteral stones tends to radiate to the flank and lumbar areas. ii) Midureteral calculi cause pain that radiates anteriorly and caudally. This midureteral pain in particular can easily mimic appendicitis on the right or acute diverticulitis on the left. iii) Distal ureteral stones cause pain that tends to radiate into the groin or testicle in the male or labia majora in the female].

19. A 39-year-old coal miner who smokes, drinks and has a family history of bladder cancer is suffering from BPH. The most important risk factor for his bladder carcinoma is?
    A. Family history
    B. Smoking
    C. Exposure to coal mine
    D. BPH

Ans. The key is B. Smoking. [Risk factors of bladder cancer: i) Smoking ii) Exposure to chemicals used in dye industry iii) Whites are more likely to develop bladder cancer iv) Risk increases with age v) More

common in men vi) Chronic bladder irritation and infections (urinary infections, kidney and bladder stones, bladder catheter left in place a long time.) vii) Personal history of bladder or other urothelial cancer viii) Family history ix) Chemotherapy or radiotherapy x) Pioglitazone for more than one year and certain herb xi) Arsenic in drinking water xii) Low fluid consumption].

20. A 39-year-old man with acute renal failure presents with palpitations. His ECG shows tall tented T waves and wide QRS complex. What is the next best step?
    A. Dialysis
    B. IV calcium chloride
    C. IV insulin w/ dextrose
    D. Calcium resonium
    E. Nebulized salbutamol

Ans. 6. Ans. The key is B. IV calcium chloride. [The ECG changes are suggestive of Hyperkalemia. At potassium level of >5.5mEq/L occurs tall tented T waves and at potassium level >7mEq/L occurs wide QRS complex with bizarre QRS morphology. Though patient needs dialysis, “NEXT” best treatment is calcium chloride as it will stabilize the heart from potassium induced arrhythmias while we prepare the patient for dialysis].

21. An old lady had UTI and was treated with antibiotics. She then developed diarrhea. What is the single most likely treatment?
    A. Co-amoxiclav
    B. Piperacillin + tazobactam
    C. Ceftriaxone
    D. Vancomycin

Ans. The key is D. Vancomycin. [Pseudomembranous colitis is treated with metronidazole or vancomycin].

22. A 32-year-old woman of 38weeks gestation complains of feeling unwell with fever, rigors and abdominal pains. The pain was initially located in the abdomen and was associated with urinary frequency and dysuria. The pain has now become more generalized specifically radiating to the right loin. She says that she has felt occasional uterine tightening. CTG is reassuring. Select the most likely diagnosis?
    A. Acute fatty liver of pregnancy
    B. Acute pyelonephritis
    C. Round ligament stretching
    D. Cholecystitis
    E. UTI

Ans. The key is B. Acute pyelonephritis. [Fever, rigor, abdominal pain associated with frequency, dysurea and radiation to the right loin suggests right sided pyelonephritis].

23. A 10-year-old girl presents with pallor and features of renal failure. She has hematuria as well as proteinuria. The serum urea and creatinine are elevated. These symptoms started after an episode of bloody diarrhea 4days ago. What is the most probable diagnosis?
    A. TTP
    B. HUS
    C. ITP
    D. HSP
    E. ARF

Ans. The key is B. HUS. [Most cases of hemolytic uremic syndrome develop in children after two to 14 days of diarrhea often bloody, due to infection with a certain strain of E. coli. Features may be i) abdominal pain, ii) pale skin, iii) hematuria and proteinuria, iv) features of renal failure like-nausea/vomiting, swelling of face, hand, feet or entire body etc. v) elevated urea and creatinine etc.].

24. A 25-year-old woman presents with urinary frequency, dysuria and fever. Urine microscopy shows 20-50 RBC and 10-20 WBC in each field. What is the most probable diagnosis?
    A. Schistosmiasis
    B. Kidney trauma
    C. Ureteric calculus
    D. Bladder calculi
    E. Cystitis

Ans. The key is E. Cystitis. [Hematuria and significant WBC in urine (>10 per HPF) makes cystitis the most likely diagnosis].

25. A 29-year-old lady admitted with history of repeated UTI now developed hematuria with loin pain. What is the most probable diagnosis?
    A. Acute pyelonephritis
    B. Chronic pyelonephritis
    C. UTI
    D. Bladder stone

Ans. The key is A. Acute pyelonephritis. [In a patient having hematuria and loin pain with history of repeated UTI suggest acute pyelonephritis].

26. An 18-year-old man presents to his GP with thirst and polyuria. Some 6months ago he had a significant head injury as the result of a RTA. He is referred to the local endocrine clinic. Which of the following results would be the most useful in confirming the diagnosis of diabetes insipidus after a water deprivation test (without additional desmopressin)?
    A. Plasma sodium of 126mmol/l
    B. Plasma sodium of 150mmol/l
    C. Plasma osmolality of 335mosmol/kg and urine osmolality of 700mosmol/kg
    D. Plasma osmolality of 280mosmol/kg and urine osmolality of 700mosmol/kg
    E. Plasma osmolality of 335mosmol/kg and urine osmolality of 200mosmol/kg

Ans. The key is E. Plasma osmolality of 335 mosmol/kg and urine osmolality of 200 mosmol/kg. [In DI plasma osmolality will be high due to excess fluid loss with urine and urine osmolality will be low due to polyuria. Hence E. is the best option here(normal plasma osmolality 275-295 mosmol/kg and normal urine osmolality is 300-900 mosmol/kg)].

27. A 10-year-old boy presents with generalized swelling. This has been present for 4days and included swollen ankles and puffiness of the face. It started a few days after he had a mild cold with runny nose. His only PMH (past medical history) was eczema. Urine analysis: hematuria, proteinuria 10g/24hours, creatinine 60µmol/l and albumin=15g/l. What is the single most likely diagnosis?
    A. IgA nephropathy
    B. HSP
    C. Minimal change nephropathy
    D. Wilson's disease
    E. Cardiac failure

Ans. The key is A. IgA nephropathy. [10 yr old boy, history of URTI and hematuria points towards the diagnosis of IgA nephropathy. It may be present with proteinuria and generalized swelling. The important differentiating point from rapidly progressive GN is duration. IgA nephropathy <1o days (usually 4/5 days history of infection but in rapidly progressive GN history of infection for >10 days].

28. A 42-year-old woman with a past medical history of severe headache treated in the emergency department presents with signs and symptoms of renal failure. She has been seen by her GP for hypertension and abdominal pain with outpatient investigations pending. Which investigation is most likely to lead to a diagnosis?
    A. US KUB
    B. CT brain
    C. IVU
    D. Renal artery Doppler
    E. Renal biopsy

Ans. The key is A. US KUB. [Hypertension, abdominal pain and features of renal failure indicates the diagnosis of ADPKD for which the diagnosis is best made by US KUB].

29. A 50-year-old newly diagnosed with hypertension complains of urinary frequency and dysuria. The urinalysis reveals presence of white cells and protein. Choose the single most appropriate treatment?
    A. Imipramine
    B. Adjust diuretics
    C. Vaginal estrogen
    D. Trimethoprim

Ans. The key is D. Trimethoprim. [Symptoms (urinary frequency and dysuria) along with white cells and protein in urine suggest UTI. Treatment is with triethoprim].

30. A 44-year-old lady who has PCKD (polycystic kidney disease) is concerned because her 38 years old brother has just died of an intracranial insult. She knows he was not hypertensive. What was the most likely cause of her brother's death?
    A. Subdural hematoma
    B. Subarachnoid hemorrhage
    C. Cerebral infarct
    D. Epidural hematoma

Ans. The key is B. Subarachnoid hemorrhage. [Cerebral aneurisms are recognized association of PCKD which may lead to subarachnoid hemorrhage].

31. An 80-year-old man has a permanent catheter. Catheter specimen urine found lots of e-coli. What is the single most appropriate management as he wants to attend his daughter's wedding next week?
    A. Change the catheter
    B. Prolonged antibiotics
    C. Bladder wash
    D. Repeat MSU after wedding
    E. Reassure

Ans. The key is A. Change the catheter.

32. A 35-year-old man with painless left testicular enlargement for the past 6 months which is increasing in size and 3 times larger than the right side. There is no tenderness or redness. What is the most likely diagnosis?
    A. Testicular tumor
    B. Hydrocele
    C. Epididymal cyst
    D. Epididymo-orchitis
    E. Reassure

Ans. The key is B Hydrocele.

33. A 60-year-old man presents with severe colicky pain from his right flank radiating to his groin. His urinalysis reveals trace blood cells. What is the single most discrimatory investigation?
    A. US abdomen
    B. XR KUB
    C. Colonoscopy
    D. Upper GI endoscopy
    E. Laproscopy

Ans. The key is A. US abdomen. [Features are of ureteric colic. X-ray KUB may miss radiolucent stones so US abdomen is the discriminatory investigation].

34. A patient had passed a 4mm stone in his urine. He has a 3mm stone in the renal pelvis found on US. What is the management?
    A. ESWL
    B. None
    C. Dormier basket
    D. Surgery
    E. PCNL (percutaneous nephrolithotomy)

Ans. The key is B. None.

- [Stones less than 5 mm in diameter pass spontaneously in up to 80% of people.
- Stones between 5 mm and 10 mm in diameter pass spontaneously in about 50% of people.
- Stones larger than 1 cm in diameter usually require intervention (urgent intervention is required if complete obstruction or infection is present).
- Two thirds of stones that pass spontaneously will do so within four weeks of onset of symptoms]. Ref: patient.info].

35. A 52-year-old man, known diabetic presents to emergency department with sudden onset of pain in the left loin and hematuria. Investigations: 8mm stone in left lower ureter. Nifedipine with steroids was prescribed as initial treatment with supportive therapy. He returned complaining of worsening pain, vomiting with passing of 2 stones. Renal function tests indicate impending ARF (acute renal failure). How will you manage this patient?
    A. Continue same treatment
    B. Start alpha blocker
    C. ESWL (extra shockwave lithotripsy)
    D. Percutaneous nephrolithotomy
    E. Percutaneous nephrostomy
    F. Open surgery

Ans. The key is E. Percutaneous nephrostomy. [Percutaneous nephrostomy, or nephropyelostomy, is an interventional procedure that is used mainly in the decompression of the renal collecting system. Percutaneous nephrostomy catheter placement has been the primary option for the temporary drainage of an obstructed collecting system. Here impending ARF indicates obstructive uropathy].

36. A 2-year-old boy presented with gradual swelling of feet and poor feeding. He has gained weight and has dark urine. What is the single most appropriate investigation?
    A. Serum albumin
    B. 24h urinary protein
    C. Serum calcium
    D. BUE
    E. Serum glucose

Ans. The key is B. 24 h urinary protein. [A case of nephritic syndrome. So the single most appropriate investigation from the given options is 24 hour urinary protein].

37. A 45-year-old known hypertensive man presents with hematuria, proteinuria and edema. What is the definitive diagnostic test for him?
    A. Urine protein
    B. Renal biopsy
    C. Renal function test
    D. Urine microscopy
    E. Serum protein

Ans. The key is B. Renal biopsy. [In nephritic syndrome glomerulus is affected. So renal biopsy is the definitive diagnostic test].

38. A 47-year-old man presents with proteinuria+, BP160/95mmHg, small kidneys that have smooth renal pelvis. What is the most probable diagnosis?
    A. GN (glomerulonephritis)
    B. Chronic pyelonephritis
    C. Unilateral renal artery stenosis
    D. Multiple myeloma
    E. ARF (acute renal failure)
    Ans. The key is A. GN. [In chr. Pyelonephritis US will demonstrate renal scarring and urinalysis will demonstrate pyuria which are absent here. In unilateral renal artery stenosis there will be considerable difference in kidney size from one another which is not found here. Here likely diagnosis is GN].

39. A 27-year-oldman presents with abdominal pain. He says his urine is dark. Examinations: BP160/105mmHg. What is the most appropriate investigation?
    A. US
    B. Renal biopsy
    C. CT
    D. Urine protein
    E. Urine microscopy

Ans. The key is A. US. [Abdominal pain, Dark urine (hematuria) and hypertension suggests ADPKD. The sensitivity of ultrasonography for ADPKD1 is 99% for at-risk patients older than 20 years].

40. A 23-year-old man presents with severe pain in the right flank radiating to his groin. He is rolling about on the floor. An IVU confirms a stone in the ureter which is 8mm in size. Which treatment modality will be most effective?
    A. Fluids and alpha blockers
    B. ESWL (extra shock-wave lithotripsy)
    C. CCB (calcium channel blocker)

D. Dormier basket
E. PCNL (percutaneous nephrolithotomy)

Ans. The key is B. ESWL. [Though for 8 mm stone we can use medical expulsive therapy but for this patient with agonizing pain “most effective” therapy is ESWL].

41. A 30-year-old man presents to hospital complaining that his urine has been very dark recently, resembling coffee at worst. He has been under the weather 2weeks back and had taken a few days off work with a sore throat and coryzal symptoms. Urine dipstick in hospital returns highly positive for blood and protein. He is admitted for supportive management and is scheduled for a renal biopsy, which shows mesangial proliferation with a positive immune-flurescence pattern. What is the most probable diagnosis?
    A. Membranous glomerulonephropathy
    B. SLE
    C. Wegener’s granulomatosis
    D. Post – strep GN
    E. IgA nephropathy

Ans. The key is D. Post- strep GN. [Nephritic picture, H/O sorethroat 2 weeks before presentation and biopsy reports are suggestive of post streptococcal glomerulonephritis].

42. A 24-year-old male who is sexually active with other males with history of discharge per urethra. Diagnosis of chlamydia has been made. What is the possible complication if left untreated?
    A. Orchitis
    B. Balanitis
    C. Epididymo-orchitis
    D. Acute abdomen

Ans. The key is C. Epididymo-orchitis.

43. A 74-year-old lady who has had a stroke in the past has an indwelling catheter for 10 months. She presents with bluish-purple discoloration of the catheter bag. What is the most likely explanation for this?
    A. Normal change
    B. Catheter degradation
    C. Acidic urine
    D. Alkaline urine
    E. Bacterial colonization of the urinary tract

Ans. The key is E. Bacterial colonization of the urinary tract. [Purple Urine Bag Syndrome].

44. A 26-year-old passed a 4mm stone in his urine. On US (ultrasonography) a 3mm stone is found in the renal pelvis. What is the single most appropriate management?
    A. ESWL

B. None
C. Open Surgery
D. Conservative

Ans. The key is D. Conservative. [Increased fluid intake is advised].

45. A 26-year-old man presents with painless hematuria. He has no other complaints and on examination no other abnormality is found. What is the most appropriate initial investigation to get to a diagnosis?
    A. Cystoscopy
    B. Midstream urine for culture
    C. Abdominal US
    D. MRI spine
    E. Coagulation screening

Ans. The key is C. Abdominal ultrasound. [Abdominal US to exclude polycystic disease].

46. A 34-year-old primigravida who is in her 16 weeks of GA (gestational age)comes for routine antenatal check-up. Her BP is 160/100mmHg. She has a history of repeated childhood UTI. What is the most likely cause of herhigh BP?
    A. Essential HTN
    B. Chronic pyelonephritis
    C. Acute pyelonephritis
    D. Pre-eclampsia
    E. Chronic UTI

Ans. The key is B. Chronic pyelonephritis. [35% of childhood UTI (urinary tract infection) is associated with VUR (vesico ureteric reflux) and many of them develop renal scarring and chronic pyelonephritis causing hypertension].

47. A 40-year-old woman who has recently returned from working in the middle east complains of thirst, episode of loin pain, urinary frequency, dysuria and has passed a urinary stone. All investigations arenormal. She plans to return to the Middle East in a month's time. What is the single best adviceto prevent recurrent stone formation?
    A. Drink less milk
    B. High fibre diet
    C. Increase fluid intake
    D. Low calcium diet
    E. Low protein diet

Ans. The key is C. Increased fluid intake. [Risk factors for renal stones include being overweight, certain foods, some medications, and not drinking enough fluids].

48. A 32-year-old man develops hematuria 2 weeks after a sore throat. What is the diagnosis?

A. Post infection nephritis
B. IgA nephropathy
C. Membranous nephritis
D. Glomerulonephritis

Ans. The key is A. Post infection nephritis. [Hematuria 2 weeks after sorethroat indicate post infection nephritis while hematuria after few days of sorethroat indicate IgA nephropathy].

49. An elder man who has anorexia, prostate symptoms and hypertension. There are small kidneys on ultrasound. What is the diagnosis?
    A. Hypertensive renal disease
    B. Prostate ca
    C. BPH

Ans. The key is A. Hypertensive renal disease. [Small kidneys suggest chronic renal failure and uremia here is the cause of anorexia. As elder he may have associated prostate symptoms from concomitant BPH].

50. A 2-year-old girl has frequency, urgency and burning micturition. She has some supra pubic tenderness. Which one of the following is the most appropriate initial investigation?
    A. Supra pubic aspiration of urine for C&S
    B. Clean catch of urine for C&S
    C. USG (ultrasonogram)
    D. IVU (intravenous urogram)
    E. MCUG (micturating cysto-urethrogram)

Ans. The key is B. Clean catch of urine for C&S. [The features are consistent with lower UTI for which clean catch of urine for c&s should be done].

51. A young boy presented to the OPD 12weeks after renal transplantation with fever and pain in lower abdomen. Renal functions were deranged. Renal biopsy showed immune cell infiltrate and tubular damage. What is the most probable diagnosis?
    A. Pyelonephritis
    B. Chronic graft rejection
    C. Acute rejection
    D. Drug toxicity
    E. Graft vs host disease

Ans. The key is C. Acute rejection. [Acute rejection usually occurs in the first few months after transplant, but may occur up to a year after transplant. Rise of creatinine, fever, graft pain these may be seen in acute graft rejection. Biopsy showing immune cell infiltrate and tubular damage are suggestive of acute graft rejection].

52. A 40-year-old man complains of severe colicky loin pain that radiates to his scrotum. He is noted to have microscopic hematuria. No masses are palpated. What is the single most likely cause?
    A. Acute cystitis
    B. Bladder ca
    C. Renal vein thrombosis
    D. Acute pyelonephritis
    E. Ureteric calculus

Ans. The key is E. Ureteric calculus. [In ureteric stone there is radiation of pain from loin to groin or scrotum. There also occurs hematuria].

53. A 60-year-old man complains of tiredness, lethargy and itching that is severe after a hot bath. He also has nocturia, polyuria and nausea and vomiting. Examinations: pallor, pigmentation and generalized edema. What is the single most likely diagnosis?
    A. Hyperthyroidism
    B. Lichen planus
    C. Lymphoma
    D. Eczema
    E. Liver failure
    F. CRF

Ans. The key is F. CRF. [Tiredness, lethargy, itching, nausea and vomiting are common features of uremia. Increased urea excretion in chronic renal failure causes polyuria and nocturia. Pallor is due to anemia of renal failure. Increased pigmentation in CRF patients is due to an increase in melanin in the basal layer and superficial dermis due to a failure of the kidneys to execrete B-melanocytestimulating hormone. Oedema is also a common feature of renal failure].

54. A 30-year-old man complains of vague pain in the loin with BP 140/90mmHg. He is found to have proteinuria and hematuria. What is the investigation to confirm the diagnosis?
    A. Abdominal US
    B. ANCA
    C. ANA
    D. Urine microscopy and culture
    E. Stool culture

Ans. The key is A. Abdominal US. [The likely diagnosis is ADPKD for which US is diagnostic investigation].

55. A patient with renal failure has serum K+ 7.5, raised creatinine and broad complex tachycardia. What is the most appropriate management?
    A. Calcium gluconate
    B. Sodium bicarbonate
    C. Dialysis
    D. Furosemide
    E. Sotalol

Ans. The key is A. Calcium gluconate. [Calcium gluconate don't shift K+ to cell or reduce potassium level but it prevents arrythmogenic action of raised K+ till definitive measure is taken].

56. An elderly lady presents with confusion. She is apyrexial but complains of dysuria for 2 days duration. What is the definitive diagnostic investigation?
    A. Blood culture
    B. Urine nitrates
    C. CT head
    D. ECG
    E. IVU

Ans. The key is B. Urine nitrates. [Dysurea is suggestive of uti. UTI also can lead to confusion. Urine nitrates if positive is diagnostic of UTI].

57. A 24-year-old man presents with painless hematuria. No other complaint and no abnormality is found on physical exam. What is the most appropriate initial investigation which is helpful to get a diagnosis?
    A. Coagulation screening
    B. MSU
    C. Cystoscopy
    D. MRI spine
    E. Abdominal US

Ans. The key is E. Abdominal US. [Painless hematuria in a young male without any other findings on history or examination often suggests Polycystic Kidney Disease].

58. An 84-year-old woman with Alzheimer's dementia has recently become incontinent and more confused than usual. What is the SINGLE most likely diagnosis?
    A. Detrusor overactivity
    B. Neuropathic bladder
    C. Nocturnal enuresis
    D. UTI
    E. Uterine prolapse

Ans. The key is D. UTI. [In UTI there may be incontinence of urine and confusion particulary in elderly].

59. A 34-year-old man had a 4mm ureteric stone which he passed in urine. This time he presents with 3cm stone in the right kidney. Single most appropriate treatment?
    A. No treatment
    B. ESWL
    C. Laparotomy
    D. Observe
    E. Operative stone removal

Ans. The key is E. Operative stone removal.

[Stones < 5mm: pass spontaneously, Increase fluid intake.

Stones 5mm-1cm /pain not resolving: medical expulsive therapy---> Nifedipine or Tamsulosin(and/or prednisolone).

Stones 1cm-2cm: ESWL or Ureteroscopy using dormia basket.

Stones > 2cm/large/multiple/complex: Percutaneous nephrolithotomy].

60. A 60-year-old woman has increasing frequency and urgency leading to occasional incontinence for 3 months. Abdominal and renal examination is normal. What is the most appropriate initial investigation?

    A. Flexible cystoscopy
    B. Retrograde cystourethrography
    C. Ultrasound scan of the kidneys
    D. Urinalysis for nitrates and leukocytes
    E. Urodynamic studies

Ans. The key is E. Urodynamic studies. [Use of urodynamic studies: To know the causes of- incontinence, frequency, urgency, problems starting a urine stream, problem emptying bladder completely, UTI etc.].

61. An 8-year-old boy has symptoms of right sided abdominal pain. He has had symptoms of UTI in the past. Abdominal ultrasound shows right-sided hydronephrosis and excretory isotope scan confirms PUJ obstruction. What is the single most appropriate management?
A. Pancreatic enzyme
B. Metoclopramide
C. Pyeloplasty (+/- percutaneous nephrostomy)
D. Enema and laxatives
E. Aspirin

Ans. The key is C. Pyeloplasty (+/- percutaneous nephrostomy). [As there is obstruction of pelvi-ureteric junction it lead to hydronephrosis and it may need to relieve acute pressure by percutaneous nephrostomy. For cure we have to go through the procedure of pyeloplasty].

62. A 55-year-old man has leg swelling. He has heavy proteinuria and his serum creatinine concentration is 185mmol/L. What is the single most appropriate investigation?
A. IVU
B. Nuclear scan
C. Renal biopsy
D. Renal Ultrasound
E. Serum cholesterol concentration

Ans. C. Renal biopsy. [At this age the most common cause of nephrotic syndrome is focal glomerulosclerosis and then membranous glomerulonephritis for both of which renal biopsy is needed to establish the diagnosis].

63. A 75-year-old man has had a frequency of micturition, poor urinary stream and some incontinence for 2 years. His serum creatinine concentration is 350umol/L. What is the single most appropriate investigation?
A. ANCA
B. Bone marrow aspirate
C. Creatinine clearance
D. Culture of MSU specimen
E. Cystoscopy
F. US of the kidney

Ans. F. US of the kidney. [features of prostatism is suggestive of prostate pathology and from the given options most appropriate is F. US of the kidney. Diagnosis is BPH and US will show obstructive uropathy (like dilatation of ureter and calyx or hydronephrosis)].

64. A 65-year-old woman has urinary frequency, weight loss, hematuria and blood clots. An abdominal ultrasound is inconclusive. What is the single most appropriate investigation?
A. IVU
B. Nuclear scan
C. Renal Ultrasound
D. Serum cholesterol concentration
E. Cystoscopy

Ans. E. Cystoscopy. [Features are of bladder cancer supported by age, weight loss and hematuria. In bladder cancer there develop UTI like symptom as frequency, dysuria etc].

COMPLETED

8. INFECTIOUS DISEASE

1. A man with suspected active TB wants to be treated at home. What should be done to prevent the spread of disease?
   A. Immediate start of the treatment with Anti-TB drugs
   B. All family members should be immediately vaccinated with BCG vaccine
   C. Patient should be isolated in a negative pressure chamber in his house
   D. Universal prevention application protocol

Ans. The key is D. Universal prevention application protocol.

2. A 47-year-old man has a temperature of 39C and is delirious. He has developed blisters mainly on his trunk, which appeared a few hours ago. He is well and not on any medications. He last travelled 5 months ago to Italy. Which of the following is the most likely diagnosis?
   A. Shingles

B. Chicken pox
C. Pemphigoid
D. Bullous pemphigus

Ans. The key is B. Chicken pox. [Centripetal distribution of blisters favours chickenpox. Adults more commonly develop a more generalized brain inflammation ("encephalitis") whose symptoms may include delirium and seizures. Incubation period of chicken-pox is 10-21 days. So this travel history is not significant].

3. A 33-year-old man presents with an itchy scaly annular rash on his thigh after a walk in the park. Which of the following drugs will treat his condition?
   A. Erythromycin
   B. Doxycycline
   C. Penicillin
   D. Amoxicillin

Ans. The key is B. Doxycycline. [Itchy scaly annular rash after a walk in the park indicates erythema migrans caused by the spirochete Borrelia Burgdorferi transmitted by bite of pinhead-sized ixodes ticks leading to lyme disease].

4. A middle aged Asian presents with episodes of fever with rigors and chills for last 1year. Blood film: ring form plasmodium with schuffner's dots in RBCs. What is the drug to eradicate this infection?
   A. Primaquine
   B. Mefloquine
   C. Proguanil
   D. Quinine
   E. Artesonate

Ans. The key is A. Primaquine. [Shuffners dots inside RBC indicate, it is plasmodium ovale or plasmodium vivex infestation. Eradication of the disease needs eradication of liver cycle. Only primaquine is the drug that can eradicate hepatic or liver cycle].

5. A 30-year-old man presents with deep penetrating knife wound. He said he had TT when he left school. What will you do for him now?
   A. Human Ig only
   B. Human Ig and TT
   C. Full course of tetanus vaccine only
   D. Human Ig and full course of tetanus vaccine
   E. Immediate reinforcing dose of vaccine

Ans. The key is E.Immediate reinforcing dose of vaccine. [The wound is tetanus prone wound. Here the man has received adequate priming course of tetanus vaccine but last dose was taken more than 10 years. So he should take immediate reinforcing dose of vaccine].

6. A patient who came from India presents with cough, fever and enlarged cervical lymph nodes. Examinations: caseating granulomata found in lymph nodes. What is the most appropriate diagnosis?
   A. Lymphoma
   B. TB adenitis
   C. Thyroid carcinoma
   D. Goiter
   E. Thyroid cyst

Ans. The key is B. TB adenitis. [Cough, fever, and cervical lymphadenopathy following travel to India makes the likely diagnosis of TB. Also caseating granulomata are diagnostic of TB].

7. A 76-year-old woman has become tired and confused following an influenza like illness. She is also breathless with signs of consolidation of the left lung base. What is the most likely diagnosis?
   A. Drug toxicity
   B. Delirium tremens
   C. Infection toxicity
   D. Hypoglycemia
   E. Electrolyte imbalance

Ans. The key is C. Infection toxicity. [Infection toxicity or toxic shock syndrome is likely here as preceding flue like illness points towards current staphylococcal pneumonia which resulted release of enterotoxin type B leading to infection toxicity].

8. A 55-year-old man has a chronic cough and sputum, night sweats and weight loss. What is the single most likely causative organism?
   A. Coagulase +ve cocci in sputum
   B. Gram -ve diplococci in sputum
   C. Gram +ve diplococci in sputum
   D. Pneumocystis carinii in sputum
   E. Sputum staining for mycobacterium tuberculosis

Ans. The key is E. Sputum staining for mycobacterium tuberculosis. [Chronic cough and sputum, night sweats and weight loss are classic features of tuberculosis].

9. A 30-year-old man presents to the emergency department with difficulty breathing. He has returned from India. Examinations: throat reveals grey membranes on the tonsils and uvula. He has mild pyrexia. What is the single most relevant diagnosis?
   A. Diphtheria
   B. IM
   C. Acute follicular tonsillitis
   D. Scarlet fever
   E. Agranulocytosis

Ans. The key is A. Diphtheria. [Diphtheria is a serious infection caused by strains of bacteria called Corynebacterium diphtheriae that make toxin (poison). History of travel to india, grey membrane in tonsil and uvula, low grade fever, and dyspnoeansuggests the diagnosis of diphtheria].

10. A 20-year-old lady is suffering from fever and loss of appetite. She has been diagnosed with toxoplasmosis. What is the treatment?
    A. Pyrimethamine
    B. Pyrimethamine + sulfadiazine
    C. Clindamycin
    D. Spiramycin
    E. Trimethoprim + sulfamethoxazole

Ans. The key is B. Pyrimethamine + sulfadiazine. [If the eye is involved, or if immunocompromized, treatment option is pyrimethamine + sulfadiazine].

11. A 34-year-old man from Zimbabwe is admitted with abdominal pain to the emergency department. An abdominal X-ray reveals bladder calcification. What is the most likely cause?
    A. Schistosoma mansoni
    B. Sarcoidosis
    C. Leishmaniasis
    D. TB
    E. Schistosoma hematobium

Ans. The key is E. Schistosoma hematobium. [Bladder involvement is caused by Schistosoma hematobium while Schistosoma mansoni causes intestinal disease].

12. A 28-year-old man presents with a maculopapular rash over his trunk and palms. He also has numerous mouth ulcers. He had a penile ulcer which healed 2wks ago. What will you do to confirm the diagnosis?
    A. PCR for treponemal and non-treponemal antibiodies
    B. Dark ground microscopy from mouth ulcer
    C. Blood culture for treponema
    D. Dengue fever

Ans. The key is A. PCR for treponomal and non-treponemal antibodies. [Non treponemal antibody test if positive indicate that there may be syphilis and it is not confirmatory alone. That is why treponemal antibody test should also be done to confirm it. On the other hand resolved disease may show negative treponemal test which is confirmed by positive non-treponemal test].

13. A 34-year-old man was walking along the country side when an insect bit him. After which he started to complain of an annular rash spreading upwards.
    A. Penicillin PO
    B. Doxycycline PO
    C. Flucloxacillin PO

D. Gentamicin PO
E. Ciprofloxacin PO

Ans. The key is B. Doxycycline PO. [Described rash is erythema migrans which is characteristic skin lesion seen in lyme disease. Lyme disease is caused by the bacteria Borrelia burgdorferi which is spread by ticks. The most common sign of infection is an expanding area of redness on the skin, known as erythema migrans, that appears at the site of the tick bite about a week after it occurred. Lyme disease is treated with Doxycycline].

14. A 67-year-old man being managed for a malignancy develops neutropenic fever. He has been commenced on Ticarcillin, Tazobactam and Gentamicin. He has also recently commenced on Meropenem but on the 3rd day his tempeature still remains >39C. 2 blood tests and urine culturesshow no organism. Investigations: Hgb 10.4g/dl, WBC <0.5, Platelets 15. What will you do next?
    A. Continue IV antibiotics and add oral antifungals
    B. Continue antibiotics and add IV antifungals
    C. Stop antibiotics
    D. Continue only present antibiotics

Ans. The key is B. Continue antibiotics and add IV antifungals. [If judicial antibiotic fail to control fever next step is to add antifungal agents].

15. A 32-year-old man has been to Thailand and returned with cervical lymphadenopathy and fever. What is he most likely suffering from?
    A. HIV
    B. EBV
    C. Typhoid
    D. Measles

Ans. The key is B. EBV. [Cervical lymphadenopathy mentioned in question which occurs in EBV infection. In ARS (acute retroviral syndrome) or primary HIV infection there is generalized lymphadenopathy. Infectious mononucleosis, or mono, refers to a group of symptoms such as fever, sore throat, swollen lymph glands in neck and armpits, headache, fatigue, muscle weakness, swollen tonsils, night sweats usually caused by the Epstein-Barr virus (EBV). It typically occurs in teenagers, but you can get it at any age. The virus is spread through saliva, which is why some people call it “the kissing disease.”].

16. A 44-year-old man went on holiday to Sudan 5weeks ago. He now presents with red urine and fever. Examination: hepatomegaly. What is the most likely diagnosis?
    A. Malaria
    B. Brucellosis
    C. Leptospirosis
    D. Schistosomiasis

Ans. The key is D. Schistosomiasis. [Holyday in Sudan, hematuria, fever and hepatomegaly suggest Schistosomiasis].

17. What is the mode of spread of chicken pox?
    A. Airborne
    B. Close contact
    C. Fecal-oral
    D. Blood
    E. Vector

Ans. The key is A. Airborne. [Mainly airborne but some cases may occur in close contacts].

18. A 16weeks pregnant patient who was exposed to a child with chicken pox came to GP for help. She was tested –ve for varicella antibody. What is the next most imp step in management?
    A. Reassurance
    B. Ig
    C. Ig + vaccine
    D. Vaccine only
    E. Acyclovir

Ans. The key is B. Ig. [If you are pregnant, come contact with chicken pox case, found antibody negative on blood test you have to take injection Ig. Ref: patient.info].

19. A 5-year-old boy was brought to GP with high temperature and many vesicles on his back. What is the most appropriate management?
    A. Topic acyclovir
    B. Oral acyclovir
    C. Oral antibiotics
    D. Topical steroids
    E. None

Ans. The key is E. None. [A case of chickenpox. None of the given treatment is used in chickenpox. Symptomatic treatment like, acetaminophen if fever, antihistamine and calamine lotions are given].

20. A 5-year-old child came from Ghana 6weeks ago. 2daysago he developed fever, vomiting and neck stiffness. He had taken malaria prophylaxis and had no rash. What is the diagnosis?
    A. Cerebral abscess
    B. Cerebral malaria
    C. Meningococcal meningitis
    D. SAH
    E. Cerebral tumor
    F. Pneumonia

Ans. The key is B. Cerebral malaria. [Incubation period of malaria is 7 – 30 days. Malaria prophylaxis cannot give confirmed protection and there is often failure of prophylaxis. Fever, vomiting, neck stiffness are consistent with cerebral malaria. In meningococcal disease there may be rash. However meningococcal meningitis may be without rash. But Ghana is endemic zone for malaria. So cerebral malaria is a stronger probability].

21. A 25-year-old woman has a recent cough, hoarseness and swelling in the neck. There are several nontender swellings on both sides of her neck. She has lost 13kgs. She takes recreational drugs. What is the most probable diagnosis?
    A. Thyrotoxicosis
    B. Hyperthyroidism
    C. Vocal cord nodules
    D. Carcinoma bronchus
    E. TB

Ans. The key is E. TB. [Cough, wt. loss, non-tender cervical lymphadenopathy, and immunodeficient state as a result of recreational drug use all these favours the diagnosis of TB. Laryngeal involvement may be the cause of horseness].

22. A 45-year-old man has developed an annular rash with a scaly edge on his thigh. The rash has been spreading over the last 3weeks. He has some general aches and pains. What is the single most useful investigation?
    A. ANA
    B. Biopsy lesion
    C. Lyme antibodies
    D. Skin scrap for mycology
    E. Skin swab for bacteria

Ans. The key is C. Lyme antibodies. [Spreading annular rash suggests erythema migrans of lyme disease].

23. A 30-year-old man from Australia returned from a business trip to Indonesia 6days ago presenting with complaints of fever, joint and muscle ache and headache, in particular behind the eye for the past 2 days. What is the most probable diagnosis?
    A. Malaria
    B. Chicken pox
    C. TB
    D. Lyme's disease
    E. Dengue

Ans. The key is E. Dengue. [Fever, arthralgia, myalgia, headache these are common in dengue fever. Particularly retro-orbital pain is well recognized feature of dengue fever].

24. A 25-year-old woman presents with a painful shallow ulcer on the vulva. What investigation has to be done?

A. HSV antibodies
B. Syphilis serology
C. Swab for hemophilusducreyi
D. Urine culture
E. Blood culture

Ans. The key is C. Swab for hemophilusducreyi. [Herpes simplex virus causes multiple painful vesicles and syphilis ulcer is painless. As here single painful ulcer probable diagnosis is Chancroid caused by Hemophilus ducreyi].

25. A7-year-old child is being investigating for TB. His parents don't agree for taking a BAL (broncho-alveolar lavage). what other sample will show growth of the organism?
    A. Blood test
    B. Throat swab
    C. Gastric washing
    D. Mantoux test
    E. CSF

Ans. The key is C. Gastric washing. [Sputum can not be obtained in extreems of age as in too young or elderly. When initial dry cough of TB sputum may not be coughed up by patients as well. So in such cases bronchoalveolar lavage (BAL) can demonstrate the bacteria. If BAL is refused alternate other procedure as gastric washing cann be done. When patient coughs the saliva is contaminated with coughed up droplets and swallowed by the patient. So gastric lavage can brig these organisms with samples of gastric washing].

26. A homeless lady presents with cough and fever. She complains of night sweats and weight loss. CXR has been done and shows opacity. What is the next appropriate management?
    A. AFB
    B. Mantoux test
    C. IFN gamma testing
    D. Bronchoscopy
    E. CT

Ans. The key is A. AFB. [Cough, fever, night sweat and weight loss in a homeless lady are very suggestive of TB. So we should do AFB as her next investigation].

27. A lady from Asia presented with lump in her neck. FNAC has been done and revealed lesions with caseous material in the center surrounded by fibrosis. What is the most probable diagnosis?
    A. Thyroid carcinoma
    B. TB lymphadenitis
    C. Lymphoma
    D. Inf Mono
    E. Mesothelioma

Ans. The key is B. TB lymphadenitis. [Central caseous necrosis with sourrounded fibrosis is diagnostic of TB lymphadenitis. The most common cellular components seen are epithelioid cell clusters, lymphocytes and langhans giant cells].

28. An 18-year-old man has a smooth, tender swelling extending from the ear to the angle of the jaw of sudden onset. Temp 38.5C. What is the single most likely diagnosis?
    A. Dental caries
    B. Mumps
    C. OE
    D. OM
    E. Temporomandibular joint pain

Ans. The key is B. Mumps. [Mumps is a viral disease caused by the mumps virus. Initial symptoms are non-specific and include fever, headache, malaise, muscle pain, and loss of appetite. These symptoms are usually followed by painful swelling of the parotid glands, called parotitis, which is the most common symptom of infection].

29. A 34-year-old man from Asia presented with 5months history of productive cough, night sweats and weight loss. His CXR reveals some shadowing in the left upper zone. What is the single most discriminating investigation?
    A. AFB for sputum
    B. CXR
    C. CT
    D. TFT
    E. US abdomen

Ans. The key is A. Sputum for AFB. [Cough, night sweats and weight loss are common features of TB. Apical lesions in lung on chest X-ray are suggestive of PTB (pulmonary tuberculosis). Most discriminating investigation is AFB for sputum].

30. A 10-year-old boy is brought to the emergency department 10hours after injury to the foot. It was punctured with a metal spike that passed through his shoe. What is the next best step?
    A. Ig
    B. Ig and vaccine
    C. Vaccine only
    D. Clean the wound
    E. Antibiotics

Ans. The key is D. Clean the wound. [“NEXT” best step is clean the wound].

31. A 29-year-old man took a tour of Japan and also travelled to other parts of Asia, developed fever, petechie and rash on his body. He didn’t take malaria prophylaxis prior to travel. What is the most likely diagnosis?
    A. Malaria

B. HSP
C. HIV
D. Dengue fever
E. ITP

Ans. The key is D. Dengue fever.

32. A 46-year-old male presents with confusion and drowsiness. What is the most likely diagnosis?
    A. Cryptococcus neoformans
    B. Toxoplasma gondii
    C. HSV
    D. CMV
    E. Candida albicans

Ans. The key is A. Cryptococcus neoformans. [This type of question can be regarded as cns infection in AIDS and some may argue there is no mention of AIDS. If you consider with immunocompetent patient likely answer may be HSV and if you consider immunodeficiency likely answer is controversial! as some say toxoplasmosis as the most common and some say Cryptococcus is most common].

33. In lyme disease, which complication is most likely to lead to collapse?
    A. Dilated CM
    B. AV block
    C. Mild encephalitis
    D. Meningitis
    E. Myocarditis

Ans. The key is B. AV block. [Cardiac complications of Lyme disease generally occur in the early phase and include conduction system disturbances, myopericarditis and congestive heart failure].

34. A 20-year-old student who recently visited Asia came to the OPD with complains of low grade fever, night sweats, anorexia and productive cough. Investigations: CXR cavitatory lesions in upper lobes. What is the single most likely causative organism?
    A. Mycoplasma
    B. Klebsiella
    C. TB
    D. PCP

Ans. The key is C. TB. [Low grade fever, night sweats, anorexia, dry (initially) or productive cough, and upper lobe cavitary lesions are highly suggestive of TB].

35. Which virus is transmitted by the fecal-oral route?
    A. Hep C
    B. Coxsackie virus
    C. Dengue

D. None of the above

Ans. The key is B. Coxsackie virus.

36. A 7-year-old child presents with lesions on the trunk. Examination: some lesions are weeping and others are crusted with a red base. What is the causative organism?
    A. Herpes simplex
    B. Varicella zoster
    C. Rubella virus
    D. Herpes zoster

Ans. The key is B. Varicella zoster. [Chicken pox is centripetal infection where rashes are predominant on trunk and face and less in extremities. There are lesions of different stages. In children herpes zoster is unlikely and chicken pox is common].

37. A middle aged Asian presents with episodes of fever with rigors and chills for last 1year. Blood film: ring form of plasmodium with schuffners dots in RBCs. What is the drug to eradicate this infection?
    A. Primaquine
    B. Mefloquine
    C. Proguanil
    D. Quinine
    E. Artesunate

Ans. The key is A. Primaquine. [Shuffners dot indicate either vivax or ovale infection and the hepatic cycle only can be eradicated by primaquine].

38. A pregnant woman returns from Sudan, now presenting with intermittent fever, rigor and seizures. What is the diagnosis?
    A. TB
    B. Malaria
    C. Meningitis
    D. Lyme disease

Ans. The key is B. Malaria. [Intermittent fever is seen in malaria. In meningitis fever is not intermittent. Also Sudan is endemic for malaria].

39. A man was bitten by a drug addict and comes to the hospital with a wound. What investigation should be undertaken?
    A. Hep C
    B. Lyme disease
    C. Hep B
    D. Syphilis
    E. Hep A

Ans. The key is C. Hepatitis B.

40. A patient of tuberculous abscess with the history of previous abscess drainage presented with fever and tenderness between L2/L3 vertebra. Which is the best investigation for this patient?
    A. XR
    B. CT
    C. US
    D. MRI
    E. Blood culture

Ans. The key is D. MRI. [To exclude any spinal cord pathology].

41. A patient comes back from India and presents with night sweats and lymphadenopathy. CXR: Cavitation. What investigation should be done next?
    A. CT scan
    B. AFB stain
    C. Blood culture
    D. Bronchoscopy

Ans. The key is B. AFB Stain [The symptoms and arrival from an endemic area for Pulmonary TB suggests the best course of action would be to go for AFB staining via ZN stain].

42. A 16-year-old girl has had an enlarging mass in the right side of her neck for the last 6 weeks. She has had no other symptoms. She has a 2 x 2 cm enlarged LN in the anterior triangle of the neck with several smaller associated LN palpable. Oropharyngeal examination shows tonsillar membranes. What is the SINGLE most likely diagnosis?
    A. Infectious mononucleosis
    B. Leukaemia
    C. Lymphoma
    D. Sarcoidosis
    E. Tuberculosis

Ans. The key is A. Infectious mononucleosis. [Though in infectious mononucleosis lymph nodes are usually seen in posterior triangle but can be seen in whole body including anterior triangle also].

43. A 22-year-old has had recent chickenpox. He now presents with confusion. He is noted to have low urine output and large petechiae all over his body. CXR: a large patch of consolidation is seen. The management of choice should be :
    A. Ventilatory support
    B. Open surgical debridement
    C. Resection of superficialpetechiae with wide margin
    D. Booster vaccine
    E. TENS
    F. Lontophoresis

G. Nephrostomy
H. Oral Corticosteroids
I. Brivudin
J. IV acyclovir

Ans. The key is J. IV acyclovir.

44. Syphilis typically causes
    A. Lymphogranuloma Venereum
    B. Testicular Torsion
    C. Hydrocele
    D. Epididymitis
    E. Seminoma
    F. Mature teratoma
    G. Varicocele
    H. Lymphoma
    I. Orchitis
    J. Spermatocele

Ans. The key is I. Orchitis.

45. A 45-year-old man has a smooth, tender swelling extending from the ear to the angle of the jaw of sudden onset. He has a temperature of 38.5 C. What is the single most likely diagnosis?

A. Presbycusis
B. Temporomandibular joint pain
C. Trigeminal neuralgia
D. Mumps
E. Otitis medisa

Ans. The key is D. Mumps.

46. What is the most appropriate antibiotic to treat uncomplicated chlamydia infection in a 21-year-old female who is not pregnant?

    A. Erythromycin
    B. Ciprofloxacin
    C. Metronidazole
    D. Cefixime
    E. Doxycycline

Ans. The key is E. Doxycycline.

COMPLETED

9. RHEUMATOLOGY

1. Patient with puffiness of face and rash showing cotton wool spots on fundoscopy. What's the diagnosis?
   A. Macular degeneration
   B. Hypertensive retinopathy
   C. Diabetic background
   D. Proliferative diabetic retinopathy
   E. SLE

Ans. The key is E. SLE. [Systemic lupus erythematosus (SLE) is an autoimmune disease. In this disease, the immune system of the body mistakenly attacks healthy tissue. It can affect the skin, joints, kidneys, brain, and other organs. Photosensitive butterfly erythematous rash on face (malar rash) and arthropathy are most common feature. Here puffiness of face is due to lupus nephritis. The classic ocular lesion in SLE is a white fluffy appearing lesion within the retina known as a cotton wool spot. The most common ocular manifestation in SLE is Keratoconjunctivits sicca].

2. A 54-year-old lady presents with sudden, severe pain in the left half of her skull. She also complains of pain around her jaw. What is the next likely step?
   A. CT
   B. MRI
   C. Fundoscopy
   D. ESR
   E. Temporal artery biopsy

Ans. The key is D. ESR. [Headache in an elderly lady and jaw claudication are suggestive of temporal arteritis. Temporal arteritis is a condition in which the temporal arteries, which supply blood to the head and brain, become inflamed or damaged. It is also known as giant cell arteritis. Blood ESR is very high in temporal arteritis and it is routinely done in elderly with suggestive clinical features].

3. A 16-year-old boy presents with rash on his buttocks and extensor surface following a sore throat. What is the most probable diagnosis?
   A. Measles
   B. Bullous-pemphigoig
   C. Rubella
   D. ITP
   E. HSP

Ans. The key is E. HSP. [Henoch-Schönlein purpura (HSP) is an acute immunoglobulin A (IgA)–mediated disorder characterized by a generalized vasculitis involving the small vessels of the skin, the gastrointestinal (GI) tract, the kidneys, the joints, and, rarely, the lungs and the central nervous system (CNS). It is the most frequent vasculitis in childhood. In HSP rash typically found in buttocks, legs and feets and may also appear on the arms, face and trunk. HSP usually follow a sorethroat].

4. A 45-year-old woman complains of pain in her hands precipitated by exposure to the cold weather. She has breathlessness on walking. When she is eating, she can feel food suddenly sticking to the gullet. It seems to be in the middle of the esophagus but she can't localize exactly where it sticks. It is usually relieved with a drink of water. Choose the single most likely cause of dysphagia from the options?
   A. Esophageal carcinoma
   B. Systemic sclerosis
   C. SLE
   D. Pharyngeal carcinoma
   E. Globus hystericus

Ans. The key is B. Systemic sclerosis. [Raynouds phenomena, pulmonary involvement, oesophageal dysmotility are suggestive of systemic sclerosis. Systemic sclerosis, also called diffuse scleroderma is an autoimmune disease of the connective tissue. It is characterized by thickening of the skin caused by accumulation of collagen, and by injuries to small arteries. Apart from skin involvement following organs are mostly affected in systemic sclerosis: the kidneys, heart, lungs, and gastrointestinal tract.Diagnosis is by clinical suspicion, presence of autoantibodies (specifically anti-centromere and anti-scl70/anti-topoisomerase antibodies) and occasionally by biopsy].

5. A 62-year-old lady presents with right sided headache and loss of vision. What is the single most appropriate investigation?
   A. ESR
   B. BUE
   C. CT head
   D. XR orbit
   E. IOP

Ans. The key is A. ESR. [Elderly (age 62), right sided headache and loss of vision are suggestive of temporal arteritis where elevated ESR is highly suggestive of this diagnosis].

6. A 45-year-old woman has been diagnosed with GCA (Giant Cell Arteritis) and is being treated with steroids. What is the other drug that can be added to this?
   A. ACEi
   B. Beta blockers
   C. Aspirin
   D. Interferons
   E. IVIG

Ans. The key is C. Aspirin [Low dose aspirin is increasingly being recommended for people with a history of giant cell arteritis. It has been found to be effective in preventing complications of giant cell arteritis, such as heart attacks or stroke (nhs.uk)].

7. A 70-year-old woman presents with recurrent episodes of parotid swelling. She complains of difficulty in talking and speaking and her eyes feel gritty on waking in the morning. What is the single most likely diagnosis?
   A. C1 esterase deficiency
   B. Crohns disease
   C. Mumps
   D. Sarcoidosis
   E. Sjogrens syndrome

Ans. The key is E. Sjogrens syndrome. [parotid swelling, difficulty talking and speaking (due to dryness or less salive), eyes feeling gritty on waking in the morning due to dryness of eye are suggestive of Sjogrens syndrome].

8. A 78-year-old woman presents with unilateral headache and pain on chewing. ESR 70mm/hr. She is on oral steroids. What is the appropriate additional treatment?
   A. Bisphosphonates
   B. HRT
   C. ACEi
   D. IFN
   E. IV steroids

Ans. The key is A. Bisphosphonates. [The elderly lady with giant cell arteritis is getting high dose steroid which can lead to demineralization and osteopenia or osteoporosis. So to prevent this bisphosphonates are given].

9. A 34-year-old man complains of arthralgia, abdominal pain and vomiting, a facial rash that is worse in the summer and hematuria. Urea and creatinine are slightly elevated with urinalysis demonstrating red cell casts. PMH (past medical history)is remarkable for childhood eczema. Which investigation is most likely to lead to a diagnosis?
   A. US KUB
   B. Joint aspiration
   C. Auto antibodies
   D. IVU
   E. Renal biopsy

Ans. The key is C. Auto antibodies. [Likely diagnosis is SLE with leupus nephritis for which auto antibody (anti ds DNA antibody) should be done].

10. A 35-year-old woman undergoing treatment for TB presents with malar rash, photosensitivity and hematuria. What is the single most likely positive antibody?
    A. Anti Ds DNA
    B. Anti Sm
    C. Anti Histone

D. Anti La
E. Anti centromere

Ans. The key is C. Antihistone antibody. [Anti histone antibody is present in 95% cases of drug induced lupus. The most common drugs that cause drug-induced SLE are hydralazine (rate roughly 20%), procainamide (rate roughly 20%, 5-8% if taken for 1 y), quinidine, isoniazid, and minocycline].

11. A 35-year-old woman has butterfly rash on her face and she suffers symmetrical joint pains on knee and elbow, ESR is raised. What is the most discriminative investigation for diagnosis?
    A. Anti DNA antibodies
    B. Anti Jo1 antibodies
    C. Anti nuclear antibodies
    D. Anti centromere antibodies
    E. Anti la antibodies

Ans. The key is A. Anti DNA antibodies. [Anti DNA antibodies to diagnose SLE].

12. A 45-year-old woman undergoing treatment for RA (rheumatoid arthritis) for the last 5years presents with dizziness, easy fatigabiliy and lack of energy. A blood film shows MCV 106. What could be the most probable reason for her anemia?
    A. Steroids
    B. Chronic disease
    C. NSAIDs
    D. Methotrexate
    E. Sulfasalazine

Ans. The key is D. Methotrexate. [Methotrexate is used as DMARDs (disease modifying anti rheumatic drugs) in rheumatoid arthritis to slow the disease progression which leads to folate deficiency anaemia].

13. A 70-year-old man presented with muscle weakness and inability to climb the stairs. Investigations: CPK raised, ESR 15. What is the most likely diagnosis?
    A. Polymyositis
    B. Polymyalgia rheumatic
    C. Reactive arthritis
    D. RS
    E. Duchenne's MD

Ans. The key is A. Polymyositis. [Proximal muscle weakness (inability to climb the stairs) and raised CPK points towards the diagnosis of polymyositis].

14. A 30-year-old man comes with history of early morning back pain and stiffness. Examinations: red eyes. What is the single most appropriate option?
    A. Iris
    B. Ciliary body

C. Cornea
D. Conjunctivitis
E. Sclera

Ans. The key is A. Iris. [Young man with early morning back pain and stiffness is suggestive of seronegative arthritis likely ankylosing spondylitis where iritis is a common association].

15. A 36-year-old lady comes with history of early morning stiffness of her small joints and with red and painful eye. What is the single most appropriate option?
    A. Iris
    B. Ciliary body
    C. Cornea
    D. Conjunctivitis
    E. Sclera
    F. Lichen planus

Ans. The key is E. Sclera. [Diagnosis is rheumatoid arthritis. Ocular manifestation of rheumatoid arthritis is scleritis (red, painfull eye)].

16. A 28-year-old man is investigated for recurrent lower back pain. A diagnosis of AS (ankylosing spondylitis) is suspected. Which of the following investigation is most useful?
    A. ESR
    B. XR sacro-iliac joints
    C. HLA B27
    D. XR thoracic spine
    E. CT lumbar spine

Ans. The key is B. XR sacro-iliac joints. [x-ray sacroiliac joint shows fusion of both SI joints and thin, symmetrical syndesmophytes bridging the intervertebral disc spaces].

17. A 23-year-old female presents with back pain and early morning stiffness, also complaining of eye problem and her sister has a similar condition. What is the single most probable diagnosis?
    A. Paget's disease
    B. PID (prolapsed intervertebral disc)
    C. Myofacial pain
    D. AS (ankylosing spondylitis)
    E. Spondylosis

Ans. The key is D. AS [Back pain with early morning stiffness and uveitis points towards the diagnosis of ankylosing spondylitis].

18. A 68-year-old man presents with muscle weakness. He is not able to climb stairs. He also complains of mild breathlessness. He says that he sometimes feels difficulty in swallowing food. Lab. investigation: ALP 216, AST 49, ALT 43, CK 417, ESR 16. What is the most likely diagnosis?

A. Polymyositis
B. Polymyalgia rheumatic
C. Muscular dystrophy
D. Esophageal carcinoma
E. Osteoarthritis

Ans. The key is A. Polymyositis. [Proxymal myopathy (not able to climb stairs), mild breathlessness (involvement of thoracic muscles or interstitial lung disease), dysphagia due to involvement of the oropharyngeal striated muscles and upper oesophagus)and raised CK suggests the diagnosis of Polymyositis].

19. A 54-year-old lady presents with sudden severe pain in the left half of her skull. She also complains of pain around her jaw. What is the most likely next step?
    A. CT
    B. MRI
    C. Fundoscopy
    D. ESR
    E. Temporal artery biopsy

Ans. The key is D. ESR. [Elderly lady with severe pain in the left half of her skull and pain around jaw is suspicious of Giant cell or Temporal arteritis. ESR if markedly raised supports the diagnosis of temporal arteritis].

20. A 45-year-old female looking pale has bluish discoloration of hands whenever she goes out in the cold. She has also noticed some reddish spots on her body. She has symmetrical peripheral arthropathy for the last year. What is the most probable diagnosis?
    A. RA (rheumatoid arthritis)
    B. Osteosarcoma
    C. Limited systemic sclerosis
    D. Diffuse systemic sclerosis
    E. Chondrosarcoma

Ans. The key is C. Limited systemic sclerosis. [Raynaud's phenomena, telangiectasia, sclerodactyly indicates to the diagnosis of CREST syndrome or Limited systemic sclerosis].

21. A patient comes with 6months history of painless bilateral swelling of the face which has been progressively increasing in size. On routine CXR, he is found to have perihilar lymphadenopathy. What is the most probable diagnosis?
    A. Chronic sialadenitis
    B. Thyroid adenoma
    C. Carcinoma of salivary gland
    D. Adenoid cystic carcinoma
    E. Mikulicz's disease

Ans. The key is E. Mikulicz's disease. [Mikulicz's disease (MD) is a well-known disorder characterized by enlarged lacrimal and parotid glands caused by infiltration with lymphocytes. When no specific cause is found it is called Mikulicz's disease; and if secondary to disease like sarcoidosis it is termed as Mikulicz's syndrome].

22. A 32-year-old woman presents with malaise fatigue and fever. She complains about weight loss. Examinations: malar rash with sparing of nasolabial fold can be seen. What is the most appropriate investigation?
    A. Anti ds DNA
    B. Anti histone
    C. Anti centromere
    D. Anti Jo
    E. Anti Scl70

Ans. The key is A. Anti ds DNA. [Features are suggestive of SLE. So most appropriate investigation from the given options is A. Anti ds DNA antibodies].

23. A 22-year-old man presents with a red, hot, swollen, metatarsal phalangeal joint, sarcoilitis and onycholysis. What is the single most likely cause of his condition?
    A. Gout
    B. RA (rheumatoid arthritis)
    C. Reiter's syndrome
    D. Psoriatic arthropathy

Ans. The key is D. Psoriatic arthropathy. [Psoriatic arthritis initially can affects the toes very similar to gout. There can be sacroilitis and onycholysis. Ref: patient.info].

24. An 18-year-old girl presents with rash on her trunk, abdominal pain, arthritis, proteinuria and hematuria. What is the most probable diagnosis?
    A. TTP
    B. ITP
    C. HSP
    D. HUS
    E. Measles

Ans. The key is C. HSP. [Henoch-Schönlein purpura (HSP) is an acute immunoglobulin A (IgA)–mediated disorder characterized by a generalized vasculitis involving the small vessels of the skin, the gastrointestinal (GI) tract, the kidneys, the joints, and, rarely, the lungs and the central nervous system (CNS). Rash on trunk, abdominal pain, arthritis, proteinuria and hematuria are well known features of HSP].

25. A 78-year-old woman presents with unilateral headache and pain on chewing. ESR 70mm/hr. She is on oral steroids. What is the appropriate additional therapy?
    A. Bisphosphonates

B. HRT
C. ACEi
D. IFN
E. IV steroids

Ans. The key is A. Bisphosphonates. [Oral steroid can lead to decrease in bone mineral density. To overcome this bisphosphonates can be administered].

26. A 75-year-old man presents with ARF (acute renal failure). He has been troubled by recurrent epistaxis but over the last 3weeks he reports to have coughed up blood too. What is the single most likely positive antibody?
    a. P ANCA
    b. C ANCA
    c. Anti Ro
    d. Anti DS DNA
    e. Anti centromere

Ans. The key is B. C ANCA. [ARF and recurrent epistaxis and hemoptysis suggest Wegener's granulomatosis. Wegener's granulometosis is a rare disease of uncertain cause that can affect people of all ages. It is characterized by inflammation in various tissues, including blood vessels (vasculitis), but primarily parts of the respiratory tract and the kidneys for which C ANCA is most specific].

27. A 23-year-old female presents with paresthesias and loss of distal pulses in her arms. She is noted to be hypertensive. She describes feeling unwell a month prior with fever and night sweats. What is the most probable diagnosis?

    A. Kawasaki disease

    B. Takayasu arteritis

    C. Buerger's disease

    D. Embolism

    E. Raynaud's phenomenon

Ans. The key is B. Takayasu arteritis [Takayasu arteritis is a granulomatous inflammation of the aorta and its major branches.

Criteria:

- Age of 40 years or younger at disease onset
- Claudication of the extremities
- Decreased pulsation of 1 or both brachial arteries
- Difference of at least 10 mm Hg in systolic blood pressure between arms

- Bruit over 1 or both subclavian arteries or the abdominal aorta
- Arteriographic narrowing or occlusion of the entire aorta, its primary branches, or large arteries in the upper or lower extremities that is not due to arteriosclerosis, fibromuscular dysplasia, or other causes].

28. A 50-year-old woman complains of several months history of weakness and difficulty climbing stairs. Examination: fissuring of the skin of her hands. CXR: pulmonary fibrosis. What is the single most likely positive antibody?
    A. Anti Jo1
    B. Anti Scl 70
    C. Anti Ro
    D. Anti dsDNA
    E. Anti centromere

Ans. A. Anti Jo1. [Anticentromere would be present in limited scleroderma and Anti-Scl 70 would be present in diffuse scleroderma. Anti-DSDNA would be positive in SLE, along with Anti-Ro. Anti-Ro is also positive in Sjogren's syndrome and scleroderma. This is a case of Polymyositis because none of the others would have the muscular weakness that is present in this case. The antibody of choice in polymyositis is Anti Jo1 antibody].

29. A 65-year-old woman complaining of symptoms suggestive of Raynaud's phenomenon and difficulty in swallowing. Examination: painful lesions on her finger tips and facial telangiectasis. What is the single most likely positive antibody?
    A. Anti Jo1
    B. Anti Scl 70
    C. Anti Ro
    D. Anti ds DNA
    E. Anti centromere

Ans. The key is E. Anti centromere. [Dysphagia, Raynaud's phenomenon, telangtectasia, painful lesions on fingertips these are suggestive features of CREST syndrome or limited scleroderma. Anti centromere antibodies are found in approximately 50-90% of patients with limited forms of scleroderma; Anticentromere antibodies are present in 82-96% of patients with the CREST variant. The specificity of this test is 95%].

30. A 22-year-old man has had an acute, painful, red right eye with blurring of vision for one day. He had a similar episode 1year ago and has had episodic back pain and stiffness relieved by exercise and diclofenac for four years. What is the SINGLE most likely cause of his red eye?
    A. Chorioretinitis
    B. Conjunctivitis
    C. Episcleritis
    D. Iritis
    E. Keratitis

Ans. The key is D. Iritis. [The symptoms described are characteristic of ankylosing spondylitis (lower back pain and stiffness which gets better after moving around and taking NSAIDS) the extra articular manifestations of AS is iritis].

31. A 32-year-old woman has had a febrile illness and swelling of the small joints of her hands, feet, wrists and knees for two days. She has a maculopapular rash and a few palpable, small cervical lymph nodes. She was previously well. There is no history of relevant travel outside the UK. She has two young children. What is the SINGLE most likely diagnosis?
    A. Psoriasis
    B. Reactive arthritis
    C. Rheumatoid arthritis
    D. Sarcoidosis
    E. SLE

Ans. The key is B. Reactive arthritis. [This is GMC sample question and given key is B. Reactive arthritis].

32. A 51-year-old woman complains of difficulty swallowing and also reddish dots on her skin. A pic of her hand is seen. What is the most appropriate term for the condition you would expect to see?

    A. Sclerodactyly
    B. RA
    C. Swan neck deformity
    D. Polydactyly
    E. Ulnar deformity

    Ans. The key is A. sclerodactyly. [Patient is suffering from crest syndrome, sclerodactyly its one of the features].

33. A 50-year-old farmer complains of pain in his left arm. Examination: he appears to have a neuropathyaffecting isolated nerves in multiple, random areas of his left arm. He also has a palpablepurpura and tender nodules on both of his upper and lower limbs. A likely diagnosis is?
    A. Carpal tunnel syndrome
    B. Polyarteritis nodosa
    C. Angina Pectoris
    D. Gout

E. Cellulitis
F. Rheumatoid arthritis
G. Erysipelas
H. Fascitis
I. Reiter's Syndrome
J. Polymyalgia Rheumatica

Ans. B. Polyarteritis nodosa. [PAN (polyarteritis nodosa) may affect nearly every organ system and thus it can present with a broad array of signs and symptoms. These manifestations result from ischemic damage to affected organs, often the skin, heart, kidneys, and nervous system. Constitutional symptoms are seen in up to 90% of affected individuals and include fever, fatigue, weakness, loss of appetite, and unintentional weight loss. Muscle and joint aches are common. The skin may show rashes, swelling, necrotic ulcers, and subcutaneous nodules (lumps). Skin manifestations of PAN include palpable purpura and livedo reticularis in some individuals. Abdominal pain may also be seen].

COMPLETED

10. PSYCHIATRY

1. A 45-year-old man keeps having intrusive thoughts about having dirt under the bed. He can't keep himself from thinking about these thoughts. If he tries to resist, he starts having palpitations. What is the most likely diagnosis?
   A. OC personality
   B. OCD
   C. Schizophrenia
   D. Panic disorder
   E. Phobia

Ans. The key is B. OCD. [Obsessive-Compulsive Disorder (OCD) is a disorder in which a person has uncontrollable, reoccurring thoughts (obsessions) and behaviors (compulsions) that he or she feels the urge to repeat over and over. Here patient's thoughts are obsession and though no compulsive act is described (like repeated cleansing of dirt) but his nature of thought like inability to resist the thinking or getting palpitation on trying to avoid thinking can be regarded as compulsion of thought. CBT is 1st line treatment and antidepressants (SSRIs) are tried if no response to CBT. More severe OCD may require a longer course of therapy and/or medication].

2. A 37-year-old lady strongly believes that a famous politician has been sending her flowers every day and is in love with her. However, this is not the case. What is the most likely diagnosis?
   A. Erotomania
   B. Pyromania
   C. Kleptomania
   D. Trichotillomania
   E. Grandiosity

Ans. The key is A. Erotomania. [Erotomania is a type of delusion in which the affected person believes that another person, usually a stranger, high-status or famous person, is in love with them].

Pyromania is an impulse control disorder in which individuals repeatedly fail to resist impulses to deliberately start fires, in order to relieve tension or for instant gratification.

Kleptomania is the inability to refrain from the urge to steal items.

Trichotillomania is an impulse disorder characterized by the compulsive urge to pull out one's hair, leading to noticeable hair loss and balding.

Grandiosity refers to an unrealistic sense of superiority].

3. A 35-year-old man with a history of schizophrenia is brought to the ER by his friends due to drowsiness. On examination he is generally rigid. A diagnosis of neuroleptic malignant syndrome can be made excepting:
   A. Renal failure
   B. Pyrexia
   C. Elevated creatinine kinase
   D. Usually occurs after prolonged treatment
   E. Tachycardia

Ans. The key is D. Usually occurs after prolonged ttreatment. [Neuroleptic malignant syndrome is a life-threatening reaction that can occur in response to neuroleptic or antipsychotic medication. Symptoms include high fever, confusion, rigid muscles, variable blood pressure, sweating, and fast heart rate.Neuroleptic malignant syndrome usually occurs SOON after start or in increasing dose of antipsychotic drugs. All others conditions mentioned are seen in this syndrome like renal failure, pyrexia, elevated creatinine kinase, tachycardia etc].

4. A 35-year-old male is bitterly annoyed with people around him. He thinks that people are putting ideas into his head. What is the single most likely diagnosis?
   A. Thought block
   B. Thought insertion
   C. Thought broadcasting
   D. Thought withdrawal
   E. Reference

Ans. The key is B. Thought insertion. [Thought insertion is feeling as if one's thoughts are not one's own, but rather belong to someone else and have been inserted into one's mind. It is a common feature of schizophrenia].

5. A 35-year-old man who has served in the army presents with lack of interest in enjoyable activities and feeling low. He doesn’t feel like reading the news or watching movies as he believes there is violence everywhere. What is the most appropriate first line therapy?
   A. Citalopram

B. Lofepramine
C. CBT
D. Chlordiazepoxide
E. Desensitization

Ans. The key is C. CBT. [This is mild depression. In mild depressive illness CBT is preferred treatment]

6. A 32-year-old woman in tears describing constant irritability with her 2 small children and inability to relax. She describes herself as easily startled with poor sleep and disturbed nightmares following a house fire a year ago, while the family slept. What is the single best treatment?
   A. Rassurance
   B. Relaxation therapy
   C. Quetiapine
   D. Lofepramine
   E. Fluoxetine

Ans. The key is E. Fluoxetine. [The diagnosis is Post Traumatic Stress Disorder. NICE guidelines suggest that trauma-focussed psychological therapies (CBT or EMDR) should be offered before medication, wherever possible. As these are not in option the best answer here is Fluoxetine (SSRI). At present, there is evidence that EMDR, psychotherapy, behaviour therapy and antidepressants are all effective. There is not enough information for us to say that one of these treatments is better than another].

7. A patient with thought disorder washes hands 6 times each time he uses the toilet. What is the best management?
   A. Psychodynamic therapy
   B. CBT
   C. Antipsychotics
   D. Refer to dermatology
   E. Reassure

Ans. The key is B. CBT (Cognitive behavioral therapy). [The diagnosis is obsessive compulsive disorder. For obsessive compulsive disorder CBT is the 1st treatment of choice and if fails next comes drugs].

8. A 78-year-old man is depressed after his wife's death. He has been neglecting himself. His son found him in a miserable state when he went to visit. The son can't deal with his father. What is the appropriate management?
   A. Voluntary admission to psychiatry ward
   B. Hand over to social worker
   C. Request son to move in with father
   D. Send pt to care home

Ans. The key is A. Voluntary admission to psychiatry ward.

9. A 29-year-old teacher is involved in a tragic RTA (road traffic accident). After that incident, he has been suffering fromnightmares and avoided driving on the motorway. He has been diagnosed with PTSD (post traumatic stress disorder). What is the most appropriate management?
   A. CBT
   B. Diazepam
   C. Citalopram
   D. Dosalepin
   E. Olanzepin

Ans. The key is A. CBT. [CBT is the treatment of choice in PTSD. NICE recommends that you are offered 8–12 regular sessions of around 60–90 minutes, seeing the same therapist at least once a week].

10. A 23-year-old girl presented with perioral paresthesia and carpopedal spasm 20 minutes after a huge argument with her boyfriend. What is the next step for this patient?
    A. SSRI
    B. Diazepam
    C. Rebreath into a paper bag
    D. Propranolol
    E. Alprazolam

Ans. The key is C. Rebreathing into a paper bag. [hyperventilation causes CO2 washout and respiratory alkalosis. An increase in pH, alkalosis, promotes increased protein binding, which decreases free calcium levels and this low calcium causes perioral persthesia and carpopedal spasm. If you continue breathing and rebreathing in paper bag it will allow CO2 concentration to rise in paper bag and as you rebreath this again and again you will regain some washed out CO2 and thus relief to this alkalosis].

11. A 25-year-old woman has been feeling anxious and nervous for the last few months. She also complains of palpitations and tremors. Her symptoms last for a few minutes and are very hard to control. She tells you that taking alcohol initially helped her relieve her symptoms but now this effect is wearing off and she has her symptoms even after drinking alcohol. What is the diagnosis?
    A. Panic disorder
    B. Depression
    C. OCD
    D. Alcohol addiction
    E. GAD

Ans. The key is A. Panic disorder. [Panic disorder is an anxiety disorder characterized by reoccurring unexpected panic attacks. Panic attacks are sudden periods of intense fear that may include palpitations, sweating, shaking, shortness of breath, numbness, or a feeling that something terrible is going to happen].

12. A 7-year-old child is very naughty. His teacher complains that he is easily distracted. His parents say that he can't do a particular task for a long time. He sometimes hurts himself and breaks many things. This causes many troubles at home. What is the diagnosis?
    A. ASD (autism spectrum disorder)
    B. Dyslexia
    C. ADHD (attention deficit hyperreactive disorder)
    D. Antisocial personality disorder
    E. Oppositional defiant

Ans. The key is C. ADHD (Attention deficit hyperreactive disorder). [Attention deficit hyperactivity disorder (ADHD) is a condition that affects people's behaviour. People with ADHD can seem restless, may have trouble concentrating and may act on impulse .Symptoms of ADHD tend to be noticed at an early age and may become more noticeable when a child's circumstances change, such as when they start school.Most cases are diagnosed when children are 6 to 12 years old.The symptoms improve with age, but many adultscontinue to experience problems].

13. A 47-year-old ex-soldier suffers from low mood and anxiety. He can't forget the images he faces before and has always had flashbacks. He is not able to watch the news because there are usually some reports about war. What is he suffering from?
    A. Depression
    B. PTSD (post-traumatic stress disorder)
    C. Panic attack
    D. Agoraphobia
    E. GAD

Ans. The key is B. PTSD. [Repeated flashbacks and tendency to avoid the thoughts of stressor is diagnostic of PTSD. PTSD is diagnosed after a person experiences symptoms for at least one month following a traumatic event. However symptoms may not appear until several months or even years later. The disorder is characterized by three main types of symptoms:

Re-experiencing the trauma through intrusive distressing recollections of the event, flashbacks, and nightmares.

Emotional numbness and avoidance of places, people, and activities that are reminders of the trauma.

Increased arousal such as difficulty sleeping and concentrating, feeling jumpy, and being easily irritated and angered].

14. A 36-year-old woman has recently spent a lot of money on buying clothes. She goes out almost every night with her friends. She believes that she knows better than her friends, so she should choose the restaurant for eating out. She gave history of having low mood at 12 years ago. What's the diagnosis?
    A. Mania
    B. Depression

C. Bipolar affective disorder
D. Borderline personality disorder
E. Dysthymia

Ans. The key is C. Bipolar affective disorder. [Initial depressive episode (may be befor a long) followed by mania is bipolar affective disorder].

15. A 25-year-old woman was brought to the emergency department by her boyfriend. She has many superficial lacerations on her forearm. She is so distressed and constantly says her boyfriend is going to end the relationship. She denies trying to end her life. What is the most likely diagnosis?
    A. Acute psychosis
    B. Severe depression
    C. Psychotic depression
    D. Borderline personality disorder
    E. Schizophrenia

Ans. The key is D. Borderline personality disorder. [Borderline personality disorder: Act impulsively and develop intense but short-lived emotional attachment to others. They are usually attention seekers but not suicidal].

16. A 28-year-old business executive presents at the GP asking for some help because she has been arguing with her boyfriend frequently. She is worried about her weight, and she thinks she may be fat. She has been on a diet and lost 7 kgs in the last 2 months on purpose. She is eating less. She used to do a lot of exercise. Now she says she's feeling down, has some insomnia and feels tired and without energy. She has not showed up at work. She is worried because recently she got a loan to buy a luxury car. She can't be fired. She complains about her low mood. She thinks this is weird because she used to be extremely productive. She used to work showing an excellent performance at the office. She even received compliments from her boss. Now, she says her boyfriend is angry because her apartment is a chaos. Usually she spends a lot of time cleaning it, even upto 3 AM. She liked it to be perfect, but not it's a mess. On examination: BMI 23, no other signs. What is the most probably diagnosis?
    A. Anorexia nervosa
    B. Bipolar disease
    C. Binge eating disorder
    D. Hyperthyroidism
    E. Schizophrenia

Ans. The key is B. Bipolar disorder. [Now she is depressed but before hypomanic which makes the likely diagnosis of bipolar disorder].

17. A woman brought her husband saying she wants the 'thing' on his forehead removed. The husband is refusing treatment saying it improves his thinking. What is the most appropriate next step?

A. Assess his mental capacity to refuse treatment
B. Remove lesion
C. Refer to ED (emergency department)
D. Mini-mental state exam
E. Refuse surgery and send patient back

Ans. The key is A. Assess his mental capacity to refuse treatment.

18. A 37-year-old man who has many convictions and has been imprisoned many times has a history of many unsuccessful relationships. He has 2 boys but doesn't contact them. What is the most probable diagnosis?
    A. Borderline personality disorder
    B. Schizophrenia
    C. Avoidant personality disorder
    D. Histrionic personality disorder
    E Antisocial behavior disorder

Ans. The key is E. Antisocial behavior disorder. [Antisocial personality disorder is a particularly challenging type of personality disorder, characterised by impulsive, irresponsible and often criminal behavior].

19. A young female who has many superficial lacerations was brought into the emergency department by her boyfriend for superficially lashing her upper arm. She is adamant and screaming that she is not suicidal but scared her boyfriend wants to leave her. What is the diagnosis?
    A. Acute psychosis
    B. Severe depression
    C. Obsessive
    D. Bipolar disorder
    E. Borderline personality disorder
    F. Schizophrenia

Ans. The key is E. Borderline personality disorder. [Borderline personality disorder (BPD), also known as emotionally unstable personality disorder, is a long term pattern of abnormal behavior characterized by unstable relationships with other people, unstable sense of self, and unstable emotions. There is often an extreme fear of abandonment, frequent dangerous behavior, a feeling of emptiness, and self-harm].

20. A 22-year-old woman was brought by her boyfriend with multiple superficial lacerations. There are scars of old cuts on her forearms. She is distressed because he wants to end the relationship. She denies suicide. What is the most likely diagnosis?
    A. Acute psychosis
    B. Borderline personality disorder
    C. Severe depression
    D. Schizoid personality

E. Psychotic depression

Ans. The key is B. Borderline personality. [Borderline personality disorder (BPD), also known as emotionally unstable personality disorder, is a long term pattern of abnormal behavior characterized by unstable relationships with other people, unstable sense of self, and unstable emotions. There is often an extreme fear of abandonment, frequent dangerous behavior, a feeling of emptiness, and self-harm].

21. A 31-year-old single man lives with his mother. He usually drives to work. He always thinks when the traffic lights change, his mother is calling him, so he drives back home. What is the diagnosis?
    A. OCD
    B. GAD
    C. Schizophrenia
    D. Bipolar
    E. Cyclothymia

Ans. The key is C. Schizophrenia. [The deliusionmetioned is delusion of perception - he thinks that the changing traffic lights are giving message to him and this is often seen in schizophrenic patients (one of the 1st rank symptom)].

22. A nurse comes to you saying that she has recently developed the habit of washing her hands after every 15-20 minutes. She is unable to concentrate on her work and takes longer than before to finish tasks as she must constantly wash her hands. What is the most appropriate management?
    A. CBT (cognitive behavioral therapy)
    B. SSRI (selective serotonin receptor inhibitors)
    C. ECT (electroconvulsive therapy)
    D. Antipsychotics
    E. Desensitization

Ans. The key is A. CBT. [The likely diagnosis is obsessive compulsive disorder. Most effective treatment for obsessive compulsive disorder is cognitive behavioral therapy].

23. A 28-yer-old business man came to the sexual clinic. He was worried that he has HIV infection. 3 HIV tests were done and all the results are negative. After a few months, he comes back again and claims that he has HIV. What is the diagnosis?
    A. Somatization
    B. Hypochondriac
    C. Mancheusens
    D. OCD
    E. Schizophrenia

Ans. The key is B. Hypochondriac. [Hypochondria is a condition in which a person is excessively and unduly worried about having a serious illness].

24. A 19-year-old man has been happier and more positive than usual, with more energy than he has ever felt before for no particular reason. He has been getting more work done at the office today and has been socializing with his friends as usual. What is the most likely diagnosis?
    A. Atypical depression
    B. Marked depression
    C. Bipolar syndrome
    D. Psychosis
    E. Hypomania

Ans. The key is E. Hypomania. [Features like i) elevated mood ii) more energy than before iii) getting more work done at the office (loss of inhibition) are common for both mania and hypomania. This is not mania as in mania we shall get psychotic symptoms like i) delusion of grandeur ii) auditory hallucinations, which are absent here].

25. A 35-year-old female attempts suicide 10 times. There is no history of psychiatric problems and all neurological examinations are normal. What is the best treatment?
    A. Problem focused treatment
    B. CBT
    C. Antipsychotic
    D. Antidepressant
    E. ECT

Ans. The key is A. Problem focused treatment. [patient is not psychotic and with normal neurology! So she may getting some problem in family life, finance, job, social life or somewhere like this which she is not able to cope with and that is leading to her suicidal thoughts].

26. A 34-year-old woman presents 3 weeks after childbirth. She has had very low mood and has been suffering from lack of sleep. She also has thought of harming her little baby. What is the most appropriate management for this patient?
    A. ECT
    B. CBT
    C. IV haloperidol
    D. Paroxetine
    E. Amitryptiline

Ans. The key is B. CBT. [Diagnosis is postpartum depression. Intrusive thought of harming baby is a feature of postpartum depression. According to NHS CBT should be tried first. Antidepressant if CBT does not work or patient does not want CBT. If severe depression and all other fail ECT is considered].

27. A 36-year-old man walks into a bank and demands money claiming he owns the bank. On being denied, he goes to the police station to report this. What kind of delusions is he suffering from?
    A. Delusion of reference
    B. Delusion of control
    C. Delusion of guilt
    D. Delusion of persecution
    E. Delusion of grandeur

Ans. The key is E. Delusion of grandeur. [A delusion of grandeur is the false belief in one's own superiority, greatness, or intelligence. People experiencing delusions of grandeur do not just have high self-esteem; instead, they believe in their own greatness and importance even in the face of overwhelming evidence to the contrary].

28. An old man comes to the doctor complaining that a part of this body is rotten and he wants it removed. What is the most likely diagnosis?
    A. Guilt
    B. Hypochondriasis
    C. Munchausen's
    D. Nihilism
    E. Capgras syndrome

Ans. The key is D. Nihilism. [Nihilistic delusion: parts of the body do not exist or are dead.

- Guilt: an emotion that occurs when a person feels that they have violated a moral standard.
- Hypochondriasis: worry about having a serious illness.
- Munchausen's: a psychiatric factitious disorder wherein those affected feign disease, illness, or psychological trauma to draw attention,sympathy, or reassurance to themselves.
- Capgras syndrome: a delusion that a friend, spouse, parent, or other close family member (or pet) has been replaced by an identical-looking impostor].

29. A woman presents with complains of abdominal pain, unsteadiness, numbness of lower limb and palpitations. All investigations are normal. What is the diagnosis?
    A. Manchausen
    B. Somatization
    C. Hypochondriac
    D. Bipolar

Ans. The key is B. Somatization. [This is multiple, recurrent, medically unexplained symptoms usually starting early in life. Usually patient presents with one symptom at a time. Investigations are normal].

30. A 28-year-old female who delivered 6 weeks ago feels sad and has no interest to feeding the baby. She has been eating poorly and having difficulty sleeping. She feels weak throughout the

day and has stopped taking the baby out of the house. She also says that the baby has evil eyes. What is the most likely diagnosis?
A. Postpartum blues
B. Postpartum depression
C. Postpartum psychosis
D. Schizophrenia
E. Psychotic depression

Ans. The key is C. Postpartum psychosis. [Features of depression: feels sad, poor eating, difficulty sleep, feeling weak ii) delusional ideas: thinks baby has evil eyes and not taking the baby out of the house. These features points to the diagnosis of postpartum psychosis. [Postpartum psychosis starts within 2 wks (occasionally later) of delivery and it can take 6 -12 months or more to recover from postpartum psychosis].

31. A man is very depressed and miserable after his wife's death. He sees no point in living now that his wife is not around and apologises for his existence. He refuses any help offered. His son has brought him to the emergency department. The son can't deal with the father any more. What is the mostappropriate next step?
A. Voluntary admission to psychiatry ward
B. Compulsory admission under MHA (mental health act)
C. Refer to social services
D. Alternate housing
E. ECT (electro convulsive therapy)

Ans. The key is B. Compulsory admission under MHA. [This patient is refusing any help offered! And his son cannot deal with him anymore! In this situation voluntary admission to psychiatry ward is not possible and the option of choice is "compulsory admission under MHA". The point here is the man has felt himself in danger by self neglect].

32. A 19-year-old boy is brought by his mother with complaint of lack of interest and no social interactions. He has no friends, he doesn't talk much, his only interest is in collecting cars/vehicles having around 2000 toy cars. What is the most appropriate diagnosis?

A. Borderline personality disorder

B. Depression

C. Schizoaffective disorder

D. Autistic spectrum disorder

Ans. The key is D. Autistic spectrum disorder.

Autism spectrum disorders affect three different areas of a child's life:

1. Social interaction
2. Communication -- both verbal and nonverbal
3. Behaviors and interests

In some children, a loss of language is the major impairment. In others, unusual behaviors (like spending hours lining up toys) seem to be the dominant factors.

33. A man with a family history of panic disorder is brought to the hospital with palpitations, tremors,sweating and muscles tightness on 3 occasions in the last 6 weeks. He doesn't complain of headache and his BP is within normal limit. What is the single most appropriate long-term treatment for him?
    A. Diazepam
    B. Olanzapine
    C. Haloperidol
    D. Fluoxetine
    E. Alprazolam

Ans. The key is D. Fluoxetine. [Recommended treatment for panic disorder is i) CBT ii) Medication (SSRIs or TCA). NICE recommends a total of seven to 14 hours of CBT to be completed within a four month period. Treatment will usually involve having a weekly one to two hour session. When drug is prescribed usually a SSRI is preferred. Antidepressants can take two to four weeks before becoming effective].

34. A 56-year-old woman who is depressed after her husband died of cancer 3months ago was givenamitryptaline. Her sleep has improved and she now wants to stop medication but she still speaks about her husband. How would you manage her?
    A. CBT
    B. Continue amitryptaline
    C. Psychoanalysis
    D. Bereavement counselling
    E. Antipsychotic

Ans. The key is B. Continue amitriptyline. [depression is important feature of bereavement. Patient may pass sleepless nights. As this patients sleep has improved it indicate she has good response to antidepressant and as she still speaks about her husband there is chance to deterioration of her depression if antidepressant is stopped. For depressive episodes antidepressants should be continued for at least 6-9 months].

35. A schizophrenic patient hears people only when he is about to fall asleep. What is the most likely diagnosis?
    A. Hypnopompic hallucinations
    B. Hyponogogic hallucinations
    C. Hippocampal hallucinations
    D. Delirious hallucinations
    E. Auditory hallucinations

Ans. The key is B. Hypnogogic hallucinations. [Hypnagogic or hypnopompic hallucinations are visual, tactile, auditory, or other sensory events, usually brief but occasionally prolonged, that occur at the transition from wakefulness to sleep (hypnagogic) or from sleep to wakefulness (hypnopompic).

36. A 32-year-oldman has obsessive compulsive disorder (OCD). What is the best treatment?
    A. CBT
    B. SSRI
    C. TCA
    D. MAO inhibitors
    E. Reassure

Ans. The key is A. CBT.

37. A 65-year-old woman says she died 3 months ago and is very distressed that nobody has buried her. When she is outdoors, she hears people say that she is evil and needs to be punished. What is the most likely explanation for her symptoms?
    A. Schizophrenia
    B. Mania
    C. Psychotic depression
    D. Hysteria
    E. Toxic confusional state

Ans. The key is C. Psychotic depression. [Psychotic depression, also known as depressive psychosis, is a major depressive episode that is accompanied by psychotic symptoms (hallucinations, delusions). In this patient nihilistic delusion favours the diagnosis of psychotic depression. It can occur in the context of bipolar disorder or majordepressive disorder].

38. A 40-year-old woman has had intermittent tension, dizziness and anxiety for 4months. Each episode usually resolves after a few hours. She said she takes alcohol to make her calm. She is in a loving relationship and has no problems at work or home. What is the next step in her management?
    A. Collateral info
    B. CT brain
    C. CBC
    D. LFT
    E. TFT

Ans. The key is A. Collateral info.

39. A 71-year-old woman looks disheveled, unkempt and sad with poor eye contact. She has recently lost her husband. Which of the following describes her condition?
    A. Anxiety
    B. Hallucination
    c. Mania
    D. High mood
    E. Low mood

Ans. The key is E. Low mood.

40. A 23-year-old man comes to the emergency department with a history of drug misuse. He recognizes that he has a problem and is willing to see a psychiatrist. Which of the following terms best describes this situation?
    A. Judgement
    B. Thought insertion
    C. Thought block
    D. Mood
    E. Insight

Ans. The key is E. Insight. [in psychiatry, the patient's awareness and understanding of the origins and meaning of his attitudes, feelings, and behavior and of his disturbing symptoms (self-understanding) is known as insight].

41. A 24-year-old man asks his GP for a sick note from work. He says that he feels down, is lethargic and has stopped enjoying playing the piccolo (his main hobby). He was admitted to the psychiatry ward last year following an episode of overspending, promiscuity and distractibility. What is the most probable diagnosis?
    A. Psychosis
    B. Cyclothymia
    C. Bipolar affective disorder
    D. Seasonal affective disorder

Ans. The key is C. Bipolar affective disorder. [presently patient has depression and previous features of mania makes the likely diagnosis of bipolar affective disorder].

42. A 40-year-old woman presents to the GP with low mood. Of note, she has an increased appetite and has gone up 2 dress sizes. She also complains that she can’t get out of bed until the afternoon. What is the most likely diagnosis?
    A. Pseudo depression
    B. Moderate depression
    C. Severe depression
    D. Dysthymia
    E. Atypical depression

Ans. The key is E. Atypical depression. [Atypical depression is a subtype of major depression or dysthymic disorder that involves several specific symptoms, including increased appetite or weight gain, sleepiness or excessive sleep, marked fatigue or weakness, moods that are strongly reactive to environmental circumstances, and feeling extremely sensitive to rejection].

43. A 26-year-old woman had bipolar disorder for 10years and is on Lithium for it. She is symptom free for the past 4 years. She is now planning her pregnancy and wants to know whether she should continue taking lithium. What is the single most appropriate advice?
    A. Continue lithium at the same dose and stop when pregnancy is confirmed
    B. Continue lithium during pregnancy and stop when breast feeding
    C. Reduce lithium dosage but continue throughout pregnancy

D. Reduce lithium gradually and stop when pregnancy is confirmed
E. Switch to sodium valproate

Ans. The key is D. Reduce lithium gradually and stop when pregnancy is confirmed.

44. A 22-year-old man has rushed into the emergency department asking for help. He describes recurrent episodes offearfulness, palpitations, faintness, hyperventilation, dryness of the mouth with peri-oraltingling and cramping of the hands. His symptoms last 5-10 minutes and have worsened since theironset 3months ago. He is worried he may be having a heart attack. An ECG shows sinustachycardia. What is the single most appropriate immediate intervention?
    A. High flow oxygen
    B. IV sedation
    C. Rebreathe into a paper bag
    D. Refer for anxiety management course
    E. Refer for urgent cardiology opinion

Ans. The key is C. Rebreathing into paper bag. [Patient has anxiety disorder (panic) which causes hyperventilation and CO2 washout leading to respiratory alkalosis. Symptoms will improve by rebreathing into paper bag as it will cause gradual increase of CO2 in paper bag and decrease the severity of respiratory alkalosis].

45. A 21-year-old woman has had several sudden onset episodes of palpitations, sweating, nausea and overwhelming fear. On one occasion she was woken from sleep and feared she was going insane. There is no previous psychiatric disorder. What is the most probable diagnosis?
    A. Pheochromocytoma
    B. Panic disorder
    C. GAD
    D. Phobia
    E. Acute stress disorder

Ans. The key is B. Panic disorder. [here closest d/d to panic disorder is pheochromocytoma. But in pheochromocytoma the most important feature is resistant hypertension and other important features are headache and abdominal pain which all are absent here. Moreover overwhelming fear is more suggestive of panic disorder. Hence here the diagnosis is B. Panic disorder].

46. A thin 18-year-old girl has bilateral parotid swelling with thickened calluses on the dorsum of her hand. What is the single most likely diagnosis?
    A. Bulimia nervosa
    B. C1 esterase deficiency
    C. Crohn’s disease
    D. Mumps
    E. Sarcoidosis

Ans. The key is A. Bulimia nervosa. [18 year thin girl, bilateral parotid swelling and thickened calluses on the knuckles from self induced vomiting are suggestive of Bulimia nervosa. Bulimia often is associated with bilateral parotid swelling (parotid hypertrophy)].

47. A 32-year-old lady complains that she hears everyone saying that she is an evil person. What type of hallucinations is she suffering from?
    A. 2nd person auditory hallucinations
    B. 3rd person auditory hallucinations
    C. Echo de la pense
    D. Gedankenlautwerden

Ans. The key is B. 3rd person auditory hallucinations. [Third person hallucinations are auditory hallucinations in which patients hear voices talking about themselves, referring to them in the third person, for example "he is an evil person"].

48. A 36-year-old woman was recently admitted to a psychiatric ward. She believes that the staff and other patients know exactly what she is thinking all the time. What is the most likely symptom this patient is suffering from?
    A. Thought insertion
    B. Thought withdrawal
    C. Thought block
    D. Though broadcasting
    E. Hallucination

Ans. The key is D. Thought broadcasting.

49. A 60-year-old woman is admitted to the hospital after a fall. She is noted to have poor eye contact. When asked how she is feeling, she admits to feeling low in mood and losing enjoyment in all her usual hobbies. She has also found it difficult to concentrate, feels that she is not good at anything, feels guilty over minor issues and feels very negative about the future. What is the most likely diagnosis?
    A. Mild depression
    B. Moderate depression
    C. Severe depression
    D. Psychosis
    E. Seasonal depression

Ans. The key is A. Mild depression. [Mild depression: i)Low mood ii) Anhedonia iii) Guilt iv) Hopelessness v) Worthlessness vi) Inability to concentrate].

50. A 19-year-old man presents for the 1st time with a firm and unshakable belief that he is being followed by terrorists who are plotting against him. What is the single best term for this man’s condition?
    A. Delusion of persecution
    B. Delusion of grandeur
    C. Delusion of control
    D. Delusion of reference
    E. Delusion of nihilism

Ans. The key is A. Delusion of persecution. [Delusions of persecution refer to false beliefs or perceptions in which a person believes that they are being treated with malicious intent, hostility, or harassment – despite significant evidence to suggest otherwise].

51. A 19-year-old female is brought in by her parents. They are concerned about her BMI which is 12. She is satisfied with it. What is the next step?
    A. Psychiatric referral for admission
    B. Family counselling
    C. Social service
    D. Start antidepo
    E. Medical admission

Ans. The key is E. Medical admission. [The diagnosis is anorexia nervosa. At this critical low BMI medical admission is indicated to improve her deficiency states and proper nutrition. BMI <15kg/m2, rapid weight loss + evidence of system failure requires urgent referral to eating disorder unit (EDU), medical unit (MU) or paediatric medical wards (Ref: OHCS)].

52. A 52-year-old woman speaks rapidly without any pause and ignores interruptions. She doesn't even pause to take enough breaths. What term best describes this kind of speech?
    A. Flight of ideas
    B. Broca's aphasia
    C. Wernicke's aphasia
    D. Pressure of speech
    E. Verbal dysphasia

Ans. The key is D. Pressure of speech. [Pressure of speech is a tendency to speak rapidly and frenziedly, as if motivated by an urgency not apparent to the listener. The speech produced is difficult to interrupt. Such speech may be too fast, erratic, irrelevant, or too tangential for the listener to understand. Commonly seen in hypomania, mania, schizophrenia, extreme anxiety and attention deficit hyperactivity disorder].

53. A 30-year-old woman has been feeling low and having difficulty in concentrating since her mother passed away 2 months ago. She feels lethargic and tends to have breathlessness and tremors from time to time. What is the most likely diagnosis?
    A. Adjustment disorder
    B. PTSD
    C. Panic disorder
    D. GAD
    E. Bereavement

Ans. The key is A. Adjustment disorder. [When 2 months passed it is no more normal bereavement but major depression or adjustment disorder].

54. A 50-year-old man presents with low mood, poor concentration, anhedonia and insomnia. He has had 2 episodes of increased activity, promiscuity and aggressive behavior in the past. He was arrested 8 months ago for trying to rob a bank claiming it as his own. Which drug is most likely to benefit him?

A. Haloperidol

B. Citalopram

C. Desipramine

D. Carbamazepine

E. Ethosuximide

Ans. The key is D. Carbamazepine. [It is a case of bipolar disorder. Mainstay of treatment is mood stabilizers such as i) Lithium carbonate ii) Anticonvulsant medicines iii) Antipsychotic medicines. So from the given options Carbamazepine is the most appropriate drug].

55. A 55-year-old woman who attends the clinic has recently been diagnosed with a depressive episode. She complains of unintentionally waking early in the morning, a recent disinterest in sex and a loss of appetite, losing 5kg weight in the last month. She feels that her mood is worse at the beginning of the day. What is the most likely diagnosis for this patient?

    A. Mild depression

    B. Moderate depression

    C. Severe depression

    D. Low mood

    E. Pseudo depression

Ans. The key is B. Moderate depression. [Sleep disturbance, disinterest in sex and loss of appetite points towards the diagnosis of moderate depression].

56. A 31-year-old woman presents with 7-10 days following childbirth, with loss of feeling for the child, loss of appetite, sleep disturbance and intrusive and unpleasant thoughts of harming the baby. What is the best treatment for this patient?
    A. Fluoxetine
    B. Haloperidol
    C. CBT
    D. Reassurance
    E. ECT

Ans. The key is A. Fluoxetine. ["Intrusive thought" of harming the baby is postpartum depression and attempt to harm is postpartum psychosis. So the given case is postpartum depression and answer is A. Fluoxetine].

57. A 24-year-old woman presents with episodes of peri-oral tingling and carpo pedal spasms every time she has to give a public talk. This also happens to her before interviews, exams and after

arguments. What is the best management strategy for this patient?
A. Diazepam
B. Rebreathe in a paper bag
C. Desensitization
D. Buspirone
E. Propranolol

Ans. The key is C. Desensitization.[Desensitization is the treatment of choice in long run. For prevention proranalol before expected exposure and if patient presents with an attack then rebreathing in a paperbag to subside her acute problems].

58. A schizophrenic says: life is unfair. I like fairs. Fairs have food. It must be good. What term describes this patient's speech?
    A. Neologism
    B. Flight of ideas
    C. Broc1a's aphasia
    D. Wernicke's aphasia
    E. Clang association

Ans. The key is E. Clang association. [The rhymic use of words as described is known as clanging or clang association often seen in schizophrenia].

59. A patient suffering from schizophrenia laughs while talking about his father's death. Which term best describes his condition?
    A. Depression
    B. Flat affect
    C. Emotional liability
    D. Incongruent affect
    E. Clang association

Ans. The key is D. Incongruent affect. [Incongruent affect means inappropriate emotional response like loughing hearing a sad news or crying hearing a good news].

60. A 24-year-old woman is afraid to leave her house as whenever she goes out, she tends to have SOB (shortness of breath) and sweating. She has stopped going out except with her husband. What is the most likely diagnosis?
    A. Social phobia
    B. Claustrophobia
    C. Depression
    D. Panic disorder
    E. Agoraphobia

Ans. The key is E. Agoraphobia. [Agoraphobia: Extreme or irrational fear of open or public places].

61. A woman is sad, fatigues and she is eating more and also has sleeping disturbance and hears the voice of her husband who died 3years ago. What is the diagnosis?
    A. OCD

B. Psychotic depression
C. Grieving
D. Severe depression

Ans. The key is B. Psychotic depression. [Here features of atypical depression along with hallucination makes the likely diagnosis to be psychotic depression].

62. A woman with a history of drug abuse and increased alcohol intake, now comes for help and she is concerned about her problem. What is the most appropriate management option?
    A. Voluntary admission
    B. Psychiatry team
    C. Mental health team
    D. Psychiatry voluntary admission

Ans. The key is B. Psychiatry team.

63. A 25-year-old woman with a history of several episodes of depression is brought to the emergency department after she was found with several empty bottles of her medications. She complains of coarse tremor, nausea and vomiting. Which of the following drugs is likely to have caused her symptoms?
    A. Fluoxetine
    B. Amitryptilline
    C. Lithium
    D. Phenelzine
    E. Olanzapine

Ans. The key is C. Lithium. [Side effect of lithium is fine tremor (in therapeutic dose) but lithium toxicity or lithium poisoning causes coarse tremor. Coarse tremor, nausea and vomiting are well known feature of lithium overdose].

64. A 23-year-old man feels anxious and agitated when faced with stress. He has an interview in 3days and would like some help in relieving his symptoms. What is the most appropriate management?
    A. SSRI
    B. CBT
    C. Propranolol
    D. Diazepam

Ans. The key is C. Propranolol. [Inappropriate anxiety during interview is performance phobia which is better helped by propranolol when help needed for short term like here as 3 days].

65. A woman presents with a history of poisoning 10 times with different substances. There are no obvious signs of depression or suicidal behavior. What is the best preventive step?
    A. Open access to ED
    B. 24h help line
    C. CBT
    D. Anti-depressants

E. Insight into problem

Ans. The key is E. Insight into problem. [Patient is not depressed and there is no suicidal behaviour. Despite repeated poisoning may indicate she is facing some stress and so insight into her problem should be sought for].

66. A 24-year-old male on remand in prison for murder is referred by the prison doctor. He is noted to be behaving oddly whilst in prison and complains of seeing things. He has a previous history of IV drug abuse. On questioning he provides inappropriate but approximate answers to all questions stating that Bill Clinton is the prime minister of England. What is the prisoner suffering from?
    A. Capgras syndrome
    Bb. Cotard syndrome
    C. Ganser syndrome
    D. Ekbom syndrome
    E. Tourette's syndrome

Ans. The key is C. Ganser syndrome. [Ganser syndrome is characterized by nonsensical or wrong answers to questions or doing things incorrectly often with visual pseudohallucinations and a decreased state of consciousness. It is also sometimes called prison psychosis, because the syndrome occurs most frequently in prison inmates, where it may represent an attempt to gain leniency from prison or court officials].

67. A 32-year-old lady has recently become more active, sleep less and bought a house and 2 new cars. What is the most likely diagnosis?
    A. Bipolar disorder
    B. Mania
    C. Hypomania
    D. Schizophrenia

Ans. The key is C. Hypomania. [Individuals in a hypomanic state have a decreased need for sleep, are extremely outgoing and competitive, have a great deal of energy and are otherwise often fully functioning (unlike full mania where unlike fully functioning there is a. obvious difficulties at work or in social relationships and activities b. requires admission to hospital to protect the person or others, or c. the person is suffering psychosis)].

68. A 20-year-old girl with amenorrhea and BMI of 14 still thinks she has to lose weight. What is the most likely diagnosis?
    A. Anorexia nervosa
    B. Bulimia nervosa
    C. OCD
    D. Depression
    E. Body dysmorphic disorder

Ans. The key is A. Anorexia nervosa. [Anorexia nervosa, often referred to simply as anorexia, is an eating disorder, characterized by low weight, food restriction, fear of gaining weight, and a strong desire to be

thin. Many people with anorexia see themselves as overweight even though they are, in fact, underweight].

69. A guy who has several convictions and has been imprisoned several times, breaks up with his family and doesn't contact his children. What type of personality disorder is this?
    A. Borderline
    B. Antisocial
    C. Schizotypal
    D. Schizoid
    E. Criminal

Ans. The key is B. Antisocial. [Antisocial personality disorder is characterized by a pervasive pattern of disregard for, or violation of, the rights of others. There may be an impoverished moral sense or conscience and a history of crime, legal problems, and impulsive and aggressive behavior].

70. A 49-year-old man lost his job and now is homeless. He was found wandering in the park. He is muttering that some people are after him. Alcohol was tested and it was negative. What will your next step be?
    A. Thiamine
    B. Neuropsycho analysis
    C. Mini mental state
    D. CT head
    E. MRI head

Ans. The key is B. Neuropsychoanalysis. [As the patient has persecutory delusion he is likely suffering from psychosis for which neuropsychoanalysis is the logical approach].

71. A 24-year-old woman known to be suffering from panic disorder presents to the hospital with tingling and numbness in her fingers. ABG: pH 7.52, PCO2 2.2kPa, PO2 11kPa, Bicarb 20. What is the most likely condition?
    A. Acute metabolic alkalosis
    B. Acute resp alkalosis
    C. Compensated resp alkalosis
    D. Compensated metabolic acidosis
    E. Acute metabolic acidosis

Ans. The key is C. Compansated respiratory alkalosis. [In panic attack there occurs hyperventilation which causes washout of CO2 and leads to acute respiratory alkalosis resulting in raised pH >7.45 (here 7.52), low PCO2 (here 2.2 kPa) with compensatory decrease in HCO3 (here 20meq/l)].

72. A 48-year-old woman always socially withdrawn has stopped going out of the house. She is afraid to socialize because she fears that people will criticize her. What is the most probable diagnosis?
    A. Agoraphobia
    B. PTSD
    C. Social anxiety
    D. OCD

E. GAD

Ans. The key is C. Social anxiety. [Social anxiety disorder is a type of complex phobia. This type of phobia has a disruptive or disabling impact on a person's life. It can severely affect a person's confidence and self-esteem, interfere with relationships and impair performance at work or school].

73. A 43-year-old woman presents with low mood, loss of libido, sleep disturbance, tiredness, palpitation, chest discomfort, irritability and recurrent worries. What is the most likely diagnosis?
    A. Seasonal Affective Disorder
    B. Moderate depression
    C. Dysthymia
    D. Generalized anxiety disorder
    E. Bipolar disorder

Ans. The key is B. Moderate depression.

[Mild depression: i)Low mood ii) Anhedonia iii) Guilt iv) Hopelessness v) Worthlessness vi) Inability to concentrate. Treatment is CBT (cognitive behavioral therapy)

Moderate depression: Features of mild + vii) Poor sleep viii) Poor Appetite ix) Poor libido x) Easy fatiguability. Treatment is Antidepressants].

74. A young man has been found in the park, drunk and brought to the emergency department by ambulance. Herecently lost his job and got divorced. He thinks nurses are plotting against him. What is themost likely diagnosis?
    A. Schizoid personality
    B. Borderline personality
    C. Schizophrenia
    D. Psychotic depression
    E. Paranoid

Ans. The key is D. Psychotic depression.

75. A 26-year-old political refugee has sought asylum in the UK and complains of poor concentration. He keeps getting thoughts of his family whom he saw killed in a political coup. He is unable to sleep and feels hopeless about his survival. Because of this he is afraid to go out. What is the most likely diagnosis?
    A. Acute stress disorder
    B. PTSD [post traumatic stress disorder]
    C. Social phobia
    D. OCD [obsessive compulsive disorder]
    E. GAD [generalized anxiety disorder]

Ans. The key is B. PTSD. [Keep getting thoughts of his family disaster, insomnia, to avoid similar circumstances he is avoiding going out these are suggestive of PTSD].

76. A 32-year-old man with schizophrenia and a history of violence and distressing auditory hallucinations was admitted to the ward with aggressive behavior and has already smashed his room. He is refusing any oral meds. What is the single most appropriate injection?
    A. Flupenthixol
    B. Fluphenazine
    C. Haloperidol
    D. Paraldehyde
    E. Risperidone

Ans. The key is C. Haloperidol. [If oral preparation was asked we could give risperidone but in question asked injectable preparation. Injection Risperidone is a depot preparation the action of which takes few days to start. So in acute case it is not suitable; hence from the given options haloperidol is the best choice].

77. A 24-year-old woman has severe depression 3 months after the birth of her first child. She is breastfeeding but is otherwise unable to look after the baby and is convinced that her family is likely to kill her. She has no interest in anything and keeps crying. What is the most appropriate treatment?
    A. Fluoxetine
    B. Citalopram
    C. CBT
    D. ECT
    E. Haloperidol

Ans. The key is E. Haloperidol. [Diagnosis is given in question as severe depression and as features of psychosis present the better diagnosis would be psychotic depression. As onset is beyond 4 weeks it is no more post partum psychosis. So the 1st line treatment for psychotic depression is combination of antipsychotic + antidepressant. As the combination is not given as options first choice goes for antipsychotic that is E. Haloperidol].

78. A 75-year-old man has been attending the clinic for lower urinary tract symptoms. His mood is very low and he says he feels unhappy, anxious and unable to sleep. He has been diagnosed with moderate depression. What treatment would be most effective for this patient?
    A. Amitriptyline
    B. Citalopram
    C. CBT
    D. Dosulepin
    E. Diazepam

Ans. The key is B. Citalopram. [Moderate depression is treated with antidepressants. Amitryptiline and Dosulepine causes urinary retention (which is comperatively less in citalopram) so not suitable in a patient with lower urinary symptoms. Hence Citalopram is the preferred option].

79. An 18-year-old girl has been diagnosed with anorexia nervosa and has mild depressive symptoms. She has cut down her food intake for the last 18 months and exercises 2 hours everyday. Her BMI 15.5,BP 90/60mmHg. What would be the single most appropriate management?
    A. Refer to eating disorder clinic

B. Refer to psychodynamic therapy
C. Refer to acute medical team
D. Prescribe antidepressant

Ans. The key is A.Refer to eating disorder clinic . [Anorexia nervosa is moderate when BMI is 15-17.5 as in given case. In moderate anorexia (BMI 15–17.5, no evidence of system failure) routine referral can be to the local community mental health team (CMHT)/adolescent unit or Eating Disorder Unit (EDU) if available. So the key is A. Eating disorder clinic]. OHCS, 9th edition, page-349].

80. A 37-year-old woman believes that her neighbours have been using her shower while she is away from home. Her 42 year old partner is convinced about this and calls the police. What term best describes this situation?
    A. Capgras syndrome
    B. Cotard syndrome
    C. Delusion of persecution
    D. Folie a deux
    E. Munchausen syndrome

Ans. The key is D. Folie a deux. [Folie a deux is symptoms of a delusional belief and hallucinations that are transmitted from one individual to another as here from wife to husband].

81. A 30-year-old woman has experienced restlessness, muscle tension and sleep disturbance on most days over the last 6 months. She worries excessively about a number of everyday events and activities and is unable to control these feelings which are impairing her ability to hold down her job. What is the most likely diagnosis?
    A. Panic disorder
    B. GAD (generalized anxiety disorder)
    C. Pheochromocytoma
    D. Acute stress disorder
    E. Social phobia

Ans. The key is B. GAD. [In GAD patient is worried about different number of events every day. Almost everything triggers the anxiety].

82. A 24-yer-old schizophrenic has been under antipsychotic trement for the last 1 year and now complains of ED Erectyl Dysfunction). Which drug is most likely to have caused this?
    A. Fluoxetine
    B. Citalopram
    C. Clozapine
    D. Haloperidol
    E. Risperidone

Ans. The key is E. Risperidone. [Haloperidol, raises serum prolactin levels to 20~40 ng/ml in therapeutic doses but risperidone causes around 171 ng/ml. High prolactin is responsible for erectyl dysfunction].

83. A 45-year-old woman has recently been diagnosed with MS (multiple sclerosis) and has been started on oral steroids. She is brought to the hospital after having ingested 100 paracetamol tablets 4h ago. She is refusing all medical treatment. What is the next best step?
    A. Observe
    B. Refer to psychiatrist to assess patient's ability to refuse treatment
    C. Gastric lavage
    D. Activated charcoal
    E. Refer to social worker

Ans. The key is B. Refer to psychiatrist to assess patient's ability to refuse treatment.

84. A 24-year-old lady has been low after the death of her husband and had stopped contacting her family. She was started on SSRI treatment and starts feeling better after a few months. On discontinuating the medicine she starts feeling that she has developed cancer just like her husband. What is the most appropriate next step?
    A. Continue SSRI
    B. Add TCA
    C. Neuropsychiatric analysis
    D. CBT
    E. Antipsychotics

Ans. The key is C. Neuropsychiatric analysis. [As patient has developed new symptom like fear of cancer, neuro-psychiatric analysis is needed].

85. A person doesn't go outside the home because he thinks that people will look at him and talk about him. He finds it difficult to associate with his peers in a restaurant or under social settings. What is the most likely diagnosis?
    A. Agoraphobia
    B. GAD
    C. Panic disorder
    D. Adjustment disorder
    E. Social phobia

Ans. The key is E. Social phobia. [Social phobia, is an anxiety disorder characterized by a significant amount of social anxiety (fear in one or more social situations), causing considerable distress and impaired ability to function in at least some parts of daily life].

86. A 68-year-old woman has been admitted with poor appetite, weight loss, poor concentration and self neglect for 3 weeks. She has not been eating or drinking adequately and has rarely left her bed. She is expressive suicidal ideas and is convinced that people are out to kill her. She has been on antidepressant therapy for the past 3 months with no improvement. What is the most appropriate treatment?
    A. Anti depressants
    B. CBT (cognitive behavioral therapy)
    C. Interpersonal therapy
    D. ECT (electroconvulsive therapy)
    E. Antipsychotics

Ans. The key is D. ECT. [For psychotic depression try antidepressants and if needed augment by adding antipsychotics and if failed then ECT. But if there is suicidal ideation ECT should be given which is proven to be safe and effective].

87. A 25-year-old girl saw a tragic RTA in which a young boy was killed. The night of the event she couldn't sleep and the day after she suddenly lost her vision. She was previously fine and there was no history of medical or psychological problems. What is the diagnosis?
    A. Conversion
    B. Somatization
    C. PTSD
    D. Dissociation
    E. GAD

Ans. The key is A. Conversion reaction. [Conversion reaction is sometimes applied to patients who present with neurological symptoms, such as numbness, blindness, paralysis, or fits, which are not consistent with a well-established organic cause, and which cause significant distress. It is thought that these symptoms arise in response to stressful situations affecting a patient's mental health].

88. A 57-year-old man who had MI a few months ago has been having a low mood. A diagnosis of moderate depression has been established. Which medication is the best treatment for him?
    A. SSRI
    B. TCA
    C. MAOi
    D. Benzodiazepam
    E. Mood stabilizer

Ans. The key is A. SSRI. [Among SSRIs Sertraline is the drug of choice in MI patient. If SSRI cannot be used Mirtazapine is recommended as next antidepressant].

89. A 36-year-old woman has recently spent a lot of money on buying clothes. She goes out almost every night with her friends. She believes that she knows better than her friends, so she should choose the restaurant for eating out with her friends. She gave history of having low mood at 12 years. What is the diagnosis?
    A. Mania
    B. Depression
    C. Bipolar affective disorder
    D. Borderline personality disorder
    E. Dysthymia

Ans. The key is C. Bipolar affective disorder. [In bipolar disorder there is depressive disorder alternate with mania and the present case is in manic stage of bipolar disorder].

90. A 45-year-old woman presents with complains of abdominal pain and blood in stool. She brings the stool sample from home but has never been able to produce a sample at the hospital. Her urine and blood tests are normal. Examination: multiple scars on the abdomen consistent with laparoscopies and appendectomy. She insists on getting further inv although no abnormalities are found. What is the most likely diagnosis?

A. Malingering
B. Somatization
C. Hypochondriasis
D. Conversion disorder
E. Munchausen syndrome

Ans. The key is E. Munchausen syndrome. [Munchausen syndrome is a psychiatric factitious disorder wherein those affected feign disease, illness, or psychological trauma to draw attention, sympathy, or reassurance to themselves].

91. A 36-year-old woman contacts the police to notify them she was responsible for a recent disastrous flood with loss of lives. What kind of delusions is she suffering from?
    A. Persecutory
    B. Poverty
    C. Guilt
    D. Nihilistic
    E. Reference

Ans. The key is C. Delusion of guilt. [Delusions of guilt or sin (self-accusation): This type of delusions involve feeling guilty or remorseful for no valid reason. An example would be someone that believes they were responsible for a war in another country or hurricane damage in another state. In this case, the person believes that they deserve to be punished for their sins and place full blame on themselves].

92. A 27-year-old man presents with symptoms characterized by alternating mood swings along with flight of ideas, elation, over activity and disinhibition, or low mood with lack of energy and socialwithdrawal. What is the most probable diagnosis?
    A. Bipolar affective disorder
    B. Dysthymia
    C. Mania
    D. Hypomania
    E. Cyclothymia

Ans. The key is A. Bipolar affective disorder. [Flight of idea, elation, over activity and disinhibition are features of mania and low mood, lack of energy and social withdrawal are features of depression. Alternating mood swings with depression and mania are chracteristic of Bipolar disorder].

93. A 64-year-old man believes a female newscaster is communicating directly with him when she turns a page. What kind of delusions is he suffering from?
    A. Persecutory
    B. Control
    C. Grandeur
    D. Nihilistic
    E. Reference

Ans. The key is E. Delusion of reference. [Delusions of reference – A neutral event is believed to have a special and personal meaning. For example, a person with schizophrenia might believe a billboard or a celebrity is sending a message meant specifically for them].

94. A couple attends their GP because of marital problems. The wife states that her husband is having affairs although she has no proof of this. The husband states that she even had him followed by a private detective and this is putting considerable strain on their marriage. What is the most likely diagnosis?
    A. Fregoli syndrome
    B. Cotard syndrome
    C. Mood disorder
    D. Ekbom syndrome
    E. Othello syndrome

Ans. The key is E. Othello syndrome. [Othello syndrome is delusion of infidelity (cheating, adultery, or having an affair) of a spouse or partner].

95. A 26-year-old man strongly believes that every elderly man he meets is his father. Although they look different, he is sure it is father wearing different disguises. What kind of delusions is this man suffering from?
    A. Delusion of persecution
    B. Erotomania
    C. Delusion of grandeur
    D. Delusion of doubles
    E. Delusion of reference

Ans. The key is D. Delusion of doubles. [The Fregoli delusion, or the delusion of doubles, is a rare disorder in which a person holds a delusional belief that different people are in fact a single person].

96. A 22-year-old man keeps having persistent and intrusive thoughts that he is a dirty thief. No matter what he tries these thoughts keep coming to him. Any attempt to avoid these thoughts leads to serious anxiety. What is the most likely diagnosis?
    A. Schizophrenia
    B. OCD
    C. PTSD
    D. Mania
    E. Psychotic depression

Ans. The key is B. OCD. [Though here is obsession of thoughts but no compulsion of activity but there is compulsion of thoughts as well which makes the diagnosis as OCD].

97. A 30-year-old man is becoming concerned about the safety of his family. He has been checking the locks of the door every hour during the night. He becomes very anxious if his wife tries to stop him. What is the most likely diagnosis?
    A. Paranoid delusion
    B. PTSD (post traumatic stress disorder)
    C. Social phobia
    D. OCD (obsessive compulsive disoeder)
    E. GAD (generalized anxiety disorder)

Ans. The key is D. OCD. [Obsessive compulsive disorder (OCD) is a mental health condition where a person has obsessive thoughts and compulsive activity.

An obsession is an unwanted and unpleasant thought, image or urge that repeatedly enters a person's mind, causing feelings of anxiety, disgust or unease.

A compulsion is a repetitive behaviour or mental act that someone feels they need to carry out to try to temporarily relieve the unpleasant feelings brought on by the obsessive thought].

98. A patient presents with a mask face. He also has gait problems. Which class of drug is causing this?
    A. Anti-depressant
    B. Anti-psychotic
    C. Anti-HTN (anty hypertensive)

Ans. The key is B. Anty-psychotic. [Anti-psychotics by reducing dopamine can precipitate or induce parkinsonism].

99. A 22-year-old girl unhappy about her weight with BMI=22. She likes to have her dinner in an expensive restaurant. She does excessive shopping. Serum K+ 3.3. What is the diagnosis?
    A. Anorexia nervosa
    B. Bipolar
    C. OCD
    D. Bulimia

Ans. The key is D. Bulimia. [BMI 22, even though unhappy, hypokalemia, like to have dinner in an expensive restaurant (probable binge eating) suggest the diagnosis of bulimia].

100. A 22-year-old girl had a fight with her boyfriend and then took 22 tablets of paracetamol. She was commenced on N-acetyl cysteine and she was medically fit to go home the following day. Which of the following does she require?
    A. OPD referral to relationship counselor
    B. OPD referral to psychiatrist
    C. Inpatient referral to psychiatrist
    D. Inpatient referral to psychologist

Ans. The key is C. Inpatient referral to psychiatrist. [Suicidal ideation is abnormal and if discharged there is chance of repeated suicidal attempts. So inpatient referral to psychiatrist is needed for this patient].

101. A 36-year-old pregnant woman comes for evaluation with her husband. Her husband has been complaining of morning sickness, easy fatiguability and even intermittent abdominal pain. What is the husband suffering from?
    A. Ganser syndrome
    B. Couvade syndrome
    C. Pseudo-psychosis
    D. Stockholm syndrome
    E. Paris syndrome

Ans. The key is B. Couvade syndrome. [Cauvade syndrome, also called sympathetic pregnancy, is a proposed condition in which a partner experiences some of the same symptoms and behavior of an expectant mother].

102. A woman complaining of diarrhea, abdominal pain and fatigue. All the tests are found to be normal. What is the cause?
A. Somatization
B. Conversion
C. Hypochondriasis

Ans. The key is A. Somatization. [Somatization disorder is patients presenting with any physical symptom and frequent medical visits in spite of negative investigations].

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103. A patient has had 1 episode of depression and 2 epissodes of mania over the last year and now presents with depression. He is on anti-depressants. What additional pharmacological treatment would now act as a prophylaxis for his condition?
A. Antidepressants
B. Antipsychotics
C. Mood stabilizers
D. No additions required

Ans. The key is C. Mood stabilizers. [Antidepressant alone can lead to manic attack and to prevent this a mood stabilizer is required].

104. A schizophrenic man complains that he can hear voices talking about him and telling him to end his life by cutting his throat. He only hears them when he wakes up from sleep and not at other times. What type of hallucinations is he having?
A. Somatic
B. Kinesthetic
C. Hypnogogic
D. Hypnopompic
E. Lilliputian

Ans. The key is D. Hypnapompic hallucination. [Hallucinations during going for sleep is hypnagogic and hallucinations during wake up from sleep is hypnapompic hallucinations].

105. A 28-year-old woman complains of hearing strange voices in her bedroom as she is falling asleep in the night. She says there is no one in the room except her. On evaluation she has no other problems. What is she suffering from?
A. Delusion of persecution
B. Cotard syndrome
C. Hypnogogic hallucinations
D. Lilliputian hallucinations
E. Schizophrenia

Ans. The key is C. Hypnagogic hallucinations. [Hallucinations during going for sleep is hypnagogic and hallucinations during wake up from sleep is hypnapompic hallucinations].

106. A 32-year-old man on psychiatric medications presents with coarse tremors and diarrhea. What is the most likely alternative to the drug causing the problem?
A. Lithium
B. Diazepam
C. Haloperidol
D. Valproate
E. Citalopram

Ans. The key is A. Lithium. [Valproate is causing the problem (valproate causes coarse tremor in therapeutic dose) and alternate drug is Lithium. As the question asks alternate drug answer is A. Lithium].

107. A 43-year-old man with a history of hospital admissions talk about various topics, moving from one loosely connected topic to another. What is the most likely diagnosis?
A. Psychosis
B. Mania
C. Schizophrenia
D. Pressured speech
E. Verbal diarrhea

Ans. The key is B. Mania. [Flight of idea is common in mania].

108. A 38-year-old woman is in the emergency department following an over dose of her medicines. She doesn't want medical treatment for the over dose. She says she wishes to be discharged. What is the single most appropriate management?
A. Community psychiatric nurse visit
B. Psychiatric OPD review the next day
C. Prescribe anti-depressants
D. Admission under the mental health act
E. Discharge and allow to go home

Ans. The key is D. Admission under the mental health act. [There is every chance of repeat over dose. So she should be admitted under mental health act].

109. A man says his insides are rotting and nobody has burried him. Which term best describes his condition?
A. Delusion of nihilism
B. Delusion of guilt
C. Delusion of persecution
D. Incongruent affect
E. Clang association

Ans. The key is A. Delusion of nihilism. [Nihilistic delusionsare specific psychopathological entities characterized by the delusional belief of being dead, decomposed or annihilated, having lost one's own internal organs or even not existing entirely as a human being].

110. A 20-year-old man complains that all his movements are being watched. Sometimes he feels as though his actions are being controlled by his radio. At other times he is aware of voices describing what he is doing. What is the most probable diagnosis?
A. Mania
B. Drug induced psychosis
C. Delusion of control
D. Schizophrenia
E. Korsakoff psychosis

Ans. The key is D. Schizophrenia.

111. A 35-year-old is agitated and euphoric. He claims to be helping the prime minister with economic policy, although this is not true when checked. What is the most likely diagnosis?
A. Mania
B. Schizophrenia
C. Hypomania
D. Drug induced personality disorder
E. Delusion of grandeur

Ans. The key is A. Mania. [Agitated, euphoric and delusion of grandiosity makes the likely diagnosis to be “Mania”. Agitation and euphoria are not feature of delusion of grandiosity but mania].

112. A 22-year-old man says that he can hear the voice of his deceased uncle telling him that he is being spied on. The patient is distressed by this becoming low in mood and anxious and has not left the house for 2 weeks. He is starting to drink increasing quantities of alcohol. He is noticed to have thought-block and passivity phenomena. What is the single most suitable medicine to treat his symptom?
A. Diazepam
B. Disulfiram
C. Fluoxetine
D. Lithium
E. Olanzapine

Ans. The key is E. Olanzapine. [Auditory hallucination, social withdrawal, thought block are features of schizophrenia. So olanzapine is the drug to be prescribed from the given option].

113. A 50 year old man presents with flight of ideas which are rambling and disinhibited. He is distractable, confused and overactive. What is the most likely diagnosis?
A. Dementia
B. Mania
C. Schizophrenia
D. Psychosis
E. Acute confusional state

Ans. The key is B. Mania. [Flight of ideas, dysinhibition, distractibility, confusion and overactivity are features of mania].

114. An 18-year-old woman says that she can't walk around as she is very big for that room. What is the most likely hallucination?
A. Extracampine visual hallucinations
B. Liliputian visual hallucinations
C. Alice in wonderland syndrome
D. Hypnagogic hallucinations

Ans. The key is C. Alice in wonderland syndrome. [Alice in Wonderland Syndrome (AIWS) is a paroxysmal, hallucinatory disorder with typical visual perceptual features. With fewer than 200 reported cases in the world, the syndrome is named after Lewis Carroll's famous book because, like Alice, patients with AIWS experience changes in the perception of their body dimensions, experiencing macro or microsomatognosia — the feeling of being bigger or smaller in relation to their environment].

115. A 62-year-old man with chronic schizophrenia presents with a mask like face and involuntary pill rolling movement in both hands. He complains of chronic cough and forgetfulness. He is on long term antipsychotic meds. What is the single most likely diagnosis?
A. Shy drager syndrome
B. Parkinsonism
C. Huntington's chorea
D. Tardive dyskinesia
E. Akathisia

Ans. The key is B. Parkinsonism. [Antypsychotic drugs can cause parkinsonism].

116. A 64-year-old woman has been brought by her son for psychiatric evaluation. She says that she has stopped living with her husband because she is convinced it is someone else posing to be him. What kind of delusions is she suffering from?
A. Delusion of reference
B. Delusion of control
C. Delusion of guilt
D. Delusion of persecution
E. Delusion of doubles

Ans. The key is E. Delusion of doubles. [The delusion of doubles, is a rare disorder in which a person holds a delusional belief that different people are in fact a single person who changes appearance or is in disguise].

117. A 19-year-old man accuses his friend of making his right arm swing out at a stranger. What is the best term to describe his condition?
A. Control
B. Persecution
C. Guilt
D. Reference
E. Grandeur

Ans. The key is A. Control. [Delusion of control is a false belief that another person, group of people, or external force controls one's general thoughts, feelings, impulses, or behavior].

118. A man on antipsychotic medicines develops features of retinitis pigmentosa. Which drug is most likely to cause these symptoms?
A. Thioridazine
B. Haloperidol
C. Chlorpromazine
D. Risperidone

Ans. The key is A. Thioridazine. [Thioridazine and other antipsychotics (neuroleptics, dopaminergic antagonists) can cause degenerative retinopathies with histological, electrophysiological and symptomatological features similar to those of primary retinitis pigmentosa].

119. A 39-year-old woman presents with symptoms recurring annually characterized by depressed mood, being socially withdrawn hypersomnia, lack of enjoyment in life, last for several months. What is the most likely diagnosis?
A. Seasonal Affective Disorder
B. Mod depression
C. Dysthymia
D. GAD
E. Bipolar disorder

Ans. The key is A. Seasonal Affective Disorder. [Depression associated with late autumn and winter and thought to be caused by a lack of light].

120. This condition affects middle aged women more than men and is characterized by low mood, early morning waking, loss of libido, tiredness and suicidal intention last for at least 2weeks. What is the most probable diagnosis?
A. Bipolar affective disorder
B. Dysthymia
C. Major depressive disorder
D. Schizoaffective disorder
E. Recurrent brief depression

Ans. The key is C. Major depressive disorder. [Given case is severe depression (major depressive disorder).

- Mild depression: i)Low mood ii) Anhedonia iii) Guilt iv) Hopelessness v) Worthlessness vi) Inability to concentrate. Treatment CBT
- Moderate depression: Features of mild + vii) Poor sleep viii) Poor Appetite ix) Poor libido x) Easy fatiguability. Treatment Antidepressants
- Severe depression: Features of moderate + xi) Suicidal intensions. Treatment ECT
- Psychotic depression: Features of severe + xii) Hallucinations xiii) Delusions xiv) Guilt xv) Nihilistic delusion. Treatment ECT].

121. A 23-year-old single male was brought to Emergency exhausted and frightened. His father tells you that his son, who was previously healthy, had, for no apparent reason, a sudden attack of fear, dizziness, sweating, palpitations and the feeling that his heart is going to stop beating. The symptoms started to decrease gradually after about 10 minutes. Which is the most likely diagnosis?
A. Panic attack
B. Delirious state
C. Alcohol withdrawal phenomena
D. Social phobia

Ans. The key is A. Panic attack. [a sudden feeling of acute and disabling anxiety; often fear of death].

122. A 60-year-old man is brought to the ED in an agitated state. He is lashing out violently. Which drug in low dosage due to its relative lack of autonomic side effects is a drug of choice in the treatment of agitation in this patient?
A. Haloperidol
B. Diazepam
C. Fluoxetine
D. Clozapine
E. Chlorpromazine

Ans. The key is B. Diazepam. [Haloperidol has autonomic side effects].

123. A 24-year-old man believes his bowels are blocked and his life is in ruin. What kind of delusion is he suffering from?
A. Persecutory
B. Factitious
C. Guilt
D. Nihilistic
E. Hypochondriacal

Ans. The key is D. Nihilistic. [The man believes his bowels are blocked and his life is ruined is an example of nihilistic delusion. A nihilistic delusion of the nonexistence or dissolution of a body part; in extreme form, the delusion of being dead or nonexistent].

124. A man under psychiatric treatment develops GI distress and tremors. Which drug is most likely to cause these symptoms?
A. Lithium
B. Diazepam
C. Citalopram
D. Clozapine
E. Imipramine

Ans. The key is A. Lithium. [Lithium causes tremor, GI distress (vomiting) along with Diabetes insipidus].

125. A 30-year-old schizophrenic female attacks her mother believing that aliens have replaced her with an exact double. What condition is she suffering from?

A. Capgras syndrome
B. Ganser syndrome
C. Todd syndrome
D. Fregoli syndrome
E. Cotard syndrome

Ans. The key is A. Capgras Syndrome. [Capgras syndrome is an irrational belief that a familiar person or place has been replaced by a duplicate.

- Ganser syndrome is a fictitious disorder in which a patient deliberately acts as if he has a physical or mental illness when he doesn't have it.

- Todd syndrome/Alice In Wonderland syndrome/Lilliputian syndrome is a disorienting neurological condition affecting human perception of size, shape and time.

- Fregoli syndrome is a delusion of doubles, a delusional belief that different ppl areinfact a single person in disguise or change appearance.

- Cotard's syndrome/Nihilistic delusions is 'walking corpse syndrome', the person think they are dead or that one of their organs has stopped functioning].

126. A patient comes with weight loss and sleep disturbance has mild depression. He has a history of MI. What is the single most appropriate treatment?
A. Diazepam
B. ECT
C. Imipramine
D. Lithium
E. Antipsychotics

Ans. The key is A. Diazepam. [Treatment for mild depression is CBT. As the patient has MI imipramine is not suitable and in mild depression antidepressant is usually not given. As the patient has sleep disturbance diazepam can be given].

127. A 45-year-old woman has been extensively investigated for a lump she believes to be cancer. She doesn't think doctors take her seriously and demands another referral. What term best describes her condition?
A. Munchausen syndrome
B. Munchausen's by proxy
C. Hypochondriasis
D. Malingering
E. Phobia

Ans. The key is C. Hypochondriasis. [Worry about having a serious illness. This debilitating condition is the result of an inaccurate perception of the condition of body or mind despite the absence of an actual medical condition].

128. A 40-year-old divorced man with bipolar affective disorder attends hospital following an OD (over dose) of 30 TCA (tricycle antidepressant) tablets. His new partner has left him and he has stopped taking his medicine and begun drinking heavily. He appears depressed, feels hopeless and is ambivalent about being alive. He is now fit for discharge from the medical ward and acknowledges the benefits of previous treatment. What is the SINGLE most appropriate next management?
A. Admission to the psychiatry ward
B. Arrange psychiatric outpatient follow-up
C. Discharge to the care of the general practitioner
D. Referral to local alcohol treatment team
E. Referral to clinical psychologist

Ans. The key is A. Admission to the psychiatry ward. [To save the patient from another overdose].

129. A 38-year-old man has disturbing thoughts about his house being infected by germs. He is anxious about safety and checks the locks of his doors repeatedly before going to bed. For the last 8 weeks he has been washing his hands every time he touches the lock, 20-30 times a day. What is the SINGLE most appropriate management?
A. Antidepressant
B. Antipsychotic
C. Anxiolytic
D. CBT
E. Psychodynamic psychotherapy

Ans. The key is D. CBT (cognitive behavioural therapy). [This scenario describes a case of OCD (obsessive compulsive disorder) for which the best management is CBT followed by SSRIs or TCAs].

130. A 35-year-old patient has been diagnosed with schizophrenia. He mimics the doctors and attendants – doing the same physical actions as them. What symptom does this patient have?
A. Echopraxia
B. Echolalia
C. Perseveration
D. Apraxia
E. Anosognosia

Ans. The key is A. Echopraxia. [Echopraxia is the involuntary repetition or imitation of another person's actions. Similar to echolalia, which is the involuntary repetition of sounds and language. Echopraxia has long been recognized as a core feature of Tourette syndrome, and is considered a complex tic, but it also occurs in autism spectrum disorders, schizophrenia and catatonia].

131. A 65-year-old patient who had MI 1 year ago now comes to the emergency department complaining that his neighbor is conspiring against him. When his son is asked, he denies it and also narrates that sometimes his father says that everybody in his office is always talking about him, which is not the case. What is the most appropriate medication?
A. TCA
B. Clozapine

C. Olanzapine
D. Lorazepam

Ans. The key is C. Olanzapine. [Clozapine is associated with the highest risk of developing or aggravating metabolic syndrome, while olanzapine and risperidone carry intermediate risk of it. Metabolic syndrome is one of the crucial risk factors predisposing or aggravating patients to cardiovascular diseases].

132. A young girl with a psychiatric history on medical treatment is brought to the dermatologist by her mother because of recurrent patchy hair loss. Exam: the hair shafts revealed twisting and fractures. This suggests the following pathology:
A. Infection with Trichophyton tonsurans
B. Infection with Microsporumcanis
C. Alopecia areata
D. Telogen Effluvium
E. Androgenetic Alopecia
F. Lichen planus
G. Traction Alopecia
H. Alopecia totalis
I. Trichorrhexis nodosa
J. Trichotillomania

Ans. The key is J. Trichotillomania. [Trichotillomania is a compulsive desire to pull out one's hair].

133. A 68-year-old man presents with bruising and history of falls. He is found to have a mask-like face, pillrolling tremor and shuffling gait. EEG normal. Which of the following conditions is he most likely being treated for?
A. HTN
B. DM
C. Psychosis
D. TIA
E. Complex partial seizure

Ans. The key is C. Psychosis. [Antipsychotics can lead to parkinsonism].

134. A 45-year-old woman presents with easy fatigability, even on no exertion, chronic headaches and body aches and severe physical and mental exhaustion. She has no underlying conditions and all investigations are non-conclusive. What is the most likely diagnosis?
A. Somatization
B. Chronic fatigure syndrome
C. Polymyalgia rheumatic
D. GCA e. Depression

Ans. The key is B. Chronic fatigue syndrome. [Chronic fatigue syndrome (CFS) causes persistent fatigue (exhaustion) that affects everyday life and doesn't go away with sleep or rest].

135. A 59-year-old woman whose periods stopped 5 years ago has become increasingly depressed.She now feels life is no longer worth living and threatens suicide. What is the single mostlikely management plan?

A. Psychological support
B. Referral to psychiatrist
C. Regular exercise
D. Vaginal lubricant
E. Vaginal estrogens

Ans. The key is B. Referral to psychiatrist. [Patient is depressed with suicidal thoughts. She should be referred to psychiatrist].

136. A 38-year-old woman has low mood, early morning awakening and poor appetite for six weeks. She had a similar episode 12 years ago and a further admission with over activity, irritability and grandiose. What is the single most likely diagnosis?

A. Post partum blues
B. Post partum depression
C. Bipolar affective disorder
D. Recurrent depressive disorder
E. Schizo-affective disorder

Ans. The key is C. Bipolar affective disorder. [The patient has now features of depression and 12 years ago she had similar symptoms and later symptoms of mania. So she is suffering from bipolar affective disorder].

137. A 40-year-old woman has acute symptoms of palpitations, sweating, difficulty in breathing and feeling unsteady on her feet. She has noticed her symptoms occur only in crowded public places.

A. Major depressive disorder
B. Obsessive compulsive disorder
C. Agoraphobia
D. Post traumatic stress disorder
E. Social anxiety disorder

Ans. C. Agoraphobia. [One may have agoraphobia if he may has fear of:
Entering shops, crowds, and public places.
Travelling in trains, buses, or planes.
Being on a bridge.
Being in a lift.
Being in a cinema, restaurant, etc, where there is no easy exit.
Being anywhere far from your home].

138. A young woman fainted in the street and was brought the A&E. She weighs 33 kg. She is alert and well in the A&E and states she is on a diet and admits to not eating or drinking anything for 48 hours. She is annoyed that she has been brought to the hospital and adamantly states that she wants to leave. What is the most appropriate next step?

A. Detain her under the Mental Health Act
B. Refer to the dietician
C. Allow her to be discharged
D. Refer her to the GP

Ans. The key is A. Detain her under the Mental Health Act.

11. HEPATOBILIARY SYSTEM

1. A 29-year-old lady who is a bank manager is referred by the GP to the medical OPD due to a long history of tiredness and pain in the joints. An autoimmune screen result showed smooth muscle antibodies positive. What is the most appropriate next investigation?

   A. ECG

   B. TFT

   C. LFT

   D. Serum glucose

   E. Jejunal biopsy

Ans. The key is C. LFT. [A case of autoimmune hepatitis. Autoimmune hepatitis is an uncommon cause of chronic hepatitis which if untreated can lead to cirrhosis. However with treatment outlook is very good. Smooth muscle antibody is positive in autoimmune hepatitis. Definitive investigation is liver biopsy. Treated with steroid [start with high dose prednisolone]. Azathioprine is commonly added with steroid to reduce its dose as steroid has more side effects than azathioprine].

2. A young male whose sclera was noted to be yellow by his colleagues has a history of taking OTC (over the counter) drugs for some pain. Tests showed raised bilirubin, ALT and AST normal. The provocation test with IV nicotinic acid is positive and produces further rise in the serum bilirubin levels. What is the most likely diagnosis?

A. Acute hepatitis

B. Drug hypersensitivity

C. Gilberts syndrome

D. Acute pancreatitis

Ans. The key is C. Gilbert's syndrome. [Only bilirubin is increased but not the liver enzymes. Also positive nicotinic acid provocation test is in favour of Gilbert's syndrome].

3. A man post-cholecystectomy presented with jaundice, fever and dark urine. What is the most diagnostic investigation?

   A. ERCP

   B. USG Abdomen

   C. CT Scan

   D. MRCP

   E. MRI

Ans. The key is A. ERCP [Post operative US will not give good results. We shall not go for ercp first as it has complications like injury and pancreatitis. Acceptable options are CT, MRI and MRCP among which most appropriate is MRCP! But as the Question wants most diagnostic it is ERCP. The diagnosis here is choledocolithiasis with cholangitis].

4. A 45-year-old woman has had severe epigastric and right hypochondrial pain for a few hours. She has a normal CBC, serum ALP is raised, normal transaminase. 3 months ago she had acholecystectomy done. What is the most appropriate investigation?

   A. US abdomen

   B. ERCP

   C. MRCP

   D. CT abdomen

   E. Upper GI endoscopy

Ans. The key is C. MRCP. [Post operative US of abdomen does not give good result for hepatobiliary system. ERCP is invasive procedure and it has its considerable complications like cholangitis, injury, pancreatitis etc. Among given options MRCP is most appropriate. We shall go for ERCP after making the diagnosis confirm. For this MRCP is preferred].

5. A lady comes in severe liver disease and hematemesis. Her INR is >10. What should she be given?

   A. FFP

   B. Steroids

   C. Whole blood

   D. IV fluids

E. Vit K

Ans. The key is A. FFP.

6. An alcoholic 56-year-old man had ascitic fluid analysis done which was found to be yellow color. What is the most appropriate cause?

   A. Alcoholic hepatitis

   B. Decompensated cirrhosis

   C. TB peritonitis

   D. Pyogenic peritonitis

   E. Neoplasm

Ans. The key is B. Decompensated cirrhosis. [If the patient experiences serious problems described below his disease has progressed from compensated cirrhosis to decompensated cirrhosis:

1. Bleeding varices (internal bleeding)

2. Ascites (fluid in the belly)

3. Encephalopathy (confusion)

4. Jaundice (yellowing of eyes and skin)].

7. A child presents with increasing jaundice and pale stools. Choose the most appropriate test?
   A. US abdomen
   B. Sweat test
   C. TFT
   D. LFT
   E. Endomyseal antibodies

Ans. The key is A. US abdomen. [This is a picture suggestive of obstructive jaundice. LFT can give clue like much raised bilirubin, AST and ALT not that high and raised alkaline phosphatase but still USG is diagnostic in case of obstructive jaundice].

8. A 28-year-old female presents with 1 week history of jaundice and 2days history of altered sleep pattern and moods. She was diagnosed with hypothyroidism for which she is receiving thyroxine. TFT showed increased TSH. PT (prothrombin time) 70s. What is the most probable diagnosis?
   A. Acute on chronic liver failure
   B. Hyper-acute liver failure
   C. Autoimmune hepatitis
   D. Acute liver failure

E. Drug induced hepatitis

Ans. The key is C. Autoimmune hepatitis. [Autoimmune hepatitis may present as acute hepatitis, chronic hepatitis, or well-established cirrhosis. Autoimmune hepatitis rarely presents as fulminant hepatic failure. One third may present as acute hepatitis marked by fever, hepatic tenderness and jaundice. Non specific features are anorexia, weight loss and behavioural change (here altered sleep pattern and moods). There may be coagulopathy (here PT 70s.) leading to epistaxis, gum bleeding etc. Presence of other autoimmune disease like hypothyroidism supports the diagnosis of autoimmune hepatitis].

9. A 42-year-old female who is obese comes with severe upper abdominal pain with a temperature 37.8C. She has 5 children. What is the most probable diagnosis?
   A. Ectopic pregnancy
   B. Ovarian torsion
   C. Hepatitis
   D. Biliary colic
   E. Cholecystitis

Ans. The key is E. Cholecystitis. [Fat, female, fare, forty and fertile are the pnemonic for cholecystitis! Here the presentation of severe upper abdominal pain with fever along with the pnemonic features points towards the diagnosis of cholecystitis].

10. A child with increasing jaundice and pale stools. Choose the appropriate test:
    A. Endomyseal antibodies
    B. Sweat test
    C. TFT
    D. LFT
    E. US

Ans. The key is E. US. [This is obstructive jaundice where US may show dilatation of common bile duct or stones].

11. A patient presented with jaundice, fever and upper abdominal pain within 24 hour after removal of gallstone by ERCP. The cholangiography was done and it was patent. What is the possible cause of his complaints?
    A. Biliary infection
    B. Acute pancreatitis
    C. Perforation

Ans. The key is B. Acute pancreatitis. [Though biliary infection is possible but acute pancreatitis is more common complication of ERCP and absence of any obstruction (stone or tumour which helps biliary infection to occur) makes cholangitis less likely].

12. A 64-year-old alcoholic who has been diagnosed with liver cirrhosis presents with a massive ascites. What is the mechanism of fluid accumulation in a patient with liver disease?
    A. Cirrhosis
    B. Portal HTN
    C. Hypoalbuminemia

D. Liver failure
E. Hepatic encephalopathy

Ans. The key is C. Hypoalbuminemia. [Mechanism of fluid accumulation (in general, not only ascites) is hypoalbuminaemia].

13. A 68-year-old man who is a known case of liver cirrhosis has developed ascites. What is the mechanism for the development of ascites?
    A. Portal HTN
    B. Hypoalbuminemia
    C. Congestive heart failure
    D. Liver failure

Ans. The key is A. Portal hypertension. [In liver cirrhosis ascites (not generalized oedema which is caused by hypoalbuminemia and other mechanisms though they may have roles) is caused by portal hypertension (portal hypertension is invariable in cirrhosis) along with other factors].

14. A 45-year-old male alcoholic presents after a large hematemesis. He has some spider naevi on his chest, BP 100/76mmHg, pulse 110bpm. He has a swollen abdomen with shifting dullness.
    A. Gastric ca
    B. Mallory-weiss tear
    C. Esophageal ca
    D. Esophageal varices
    E. Esophagitis
    F. Peptic ulceration

Ans. The key is D. Esophgeal varices. [Spider nevi and ascites suggest advanced liver disease. Here in alcoholic middle aged man having large hematemesis with above mentioned features are very suggestive of bleeding from esophageal varices secondary to portal hypertension in liver cirrhosis].

15. A 45-year-old woman presents with pruritis. Examination: skin pigmentation. Investigation: raised ALP and presence of anti-mitochondrial antibodies. What is the single most likely diagnosis?
    A. Psoriasis
    B. Scabies
    C. Atopic eczema
    D. Dermatitis herpetiformis
    E. Hyperthyroidism
    F. Primary biliary cirrhosis

Ans. The key is F. Primary biliary cirrhosis. [Primary biliary cirrhosis, is an autoimmune disease of the liver. It results from a slow, progressive destruction of the small bile ducts of the liver, causing bile and other toxins to build up in the liver, a condition called cholestasis. Further slow damage to the liver tissue leads to scarring, fibrosis, and eventually cirrhosis.Pruritus, skin pigmentation (increased amounts of melanin, widely dispersed throughout both epidermis and dermis), raised ALP, and presence of AMA are diagnostic of primary biliary cirrhosis].

16. A 42-year-old female who is obese comes with severe upper abdominal pain and right shoulder tip pain with a temperature of 37.8C. She has 5 children. What investigation should we do for diagnosis?
    A. ERCP
    B. LFT
    C. Serum amylase
    D. MRCP
    E. US abdomen

Ans. The key is E. US abdomen. [The diagnosis is cholecystitis. The diagnosis of cholecystitis is suggested by the history (abdominal pain, nausea, vomiting, fever) and physical examinations in addition to laboratory and ultrasonographic testing. Boas's sign which is pain in the area below the right scapula, can be a symptom of acute cholecystitis. Pnemonic for cholecystitis is 5 “f”. Fat, female, fair, forty, fertile = cholecystitis].

17. An 18-year-old male works in a company where lunches are often catered. One day, the water at the company facility is not working, but they manage to have the lunch anyway. 2wks later, he becomes sick. He develops anorexia, nausea, malaise and jaundice. During the course of the next 4wks, 7 people who shared in the lunch become ill with similar symptoms. After a few wks, each of the 7 people completely recovers and they replace their caterer. What is a likely diagnosis?
    A. Pancreatic ca
    B. Hemochromatosis
    C. Laennec’s cirrhosis
    D. Hep A
    E. HCC
    F. Rotor’s syndrome
    G. Primary biliary cirrhosis
    H. Gilbert’s syndrome
    I. Hep B
    J. Hemolysis

Ans. The key is D. Hepatitis A. [Symptoms of Hepatitis A range from mild nauseas to liver failure (very rare).Spread is normally by the faecal-oral route although there are occasional outbreaks through food sources.Hand washing and good hygiene around food and drink prevent spread of infection.Increasing age is a direct determinant of disease severity].

COMPLETED

12. SKIN AND VENEREAL DISEASE

1. A resident of a nursing home presented with rashes in his finger webs and also on his abdomen, with complaints of itching which is severe at night. He was diagnosed with scabies. What the best treatment for his condition?

A. 0.5% permethrin

B. Doxycycline

C. 5% permethrin

D. Reassure

E. Acyclovir

Ans. The key is C. 5% permethrin. [Scabies outbreaks in nursing homes and cases of crusted scabies may require combination therapy consisting of topical application of permethrin and 2 oral doses of ivermectin at 200 mcg/kg (administered 1 week apart)].

2. A 35-year-old lady presents with painful ulcers on her vulva, what is the appropriate investigation which will lead to the diagnosis?

   A. Anti-HSV antibodies

   B. Dark ground microscopy of the ulcer

   C. Treponema palladium antibody test

   D. Rapid plasma regain test

   E. VDRL

Ans. The key is A. Anti-HSV antibodies. [Genital Herpes may be asymptomatic or may remain dormant for months or even years. When symptoms occur soon after a person is infected, they tend to be severe. They may start as multiple small blisters that eventually break open and produce raw, painful sores that scab and heal over within a few weeks. The blisters and sores may be accompanied by flu-like symptoms with fever and swollen lymph nodes.

There are three major drugs commonly used to treat genital herpes symptoms: acyclovir (Zovirax), famciclovir (Famvir), and valacyclovir(Valtrex). These are all taken in pill form. Severe cases may be treated with the intravenous (IV) drug acyclovir].

3. A 53-year-old man presents with a longstanding history of a 1cm lesion on his arm. It has started bleeding on touch. What is the most likely diagnosis?

   A. Basal cell carcinoma

   B. Kaposi's sarcoma

   C. Malignant melanoma

   D. Squamous cell carcinoma

E. Kerathoacanthoma

Ans. The key is D. Squamous cell carcinoma. [SSCs Arises in squamous cells. SCCs may occur on all areas of the body including the mucous membranes and genitals, but are most common in areas frequently exposed to the sun, such as the rim of the ear, lower lip, face, balding scalp, neck, hands, arms and legs. SCCs often look like scaly red patches, open sores, elevated growths with a central depression, or warts; they may crust or bleed. A tissue sample (biopsy) will be examined under a microscope to arrive at a diagnosis. Squamous cell carcinomas detected at an early stage and removed promptly are almost always curable and cause minimal damage].

4. A woman has numerous painful ulcers on her vulva. What is the cause?

   A. Chlamydia

   B. Trichomonas

   C. Gardenella

   D. HSV

   E. EBV

Ans. The key is D. HSV.

5. A 7-year-old girl has been treated with penicillin after sore throat, fever and cough. Then she develops skin rash and itching. What is the most probable diagnosis?

   A. Erythema nodosum

   B. Erythema multiforme

   C. SJS

   D. Erythema marginatum

   E. Erythema gangernosum

Ans. The key is B. Erythema multiforme. [Common drugs causing erythma multiforme are: antibiotics (including, sulphonamides, penicillin), anticonvulsants (phenytoin,barbiturates), aspirin, antituberculoids, and allopurinol].

6. A patient from Africa comes with nodular patch on the shin which is reddish brown. What is the most probable diagnosis?

   A. Lupus vulgaris

   B. Erythema nodosum

C. Pyoderma gangrenosum

D. Erythema marginatum

E. Solar keratosis

Ans. The key is B. Erythema nodosum. [Causes of erythema nodosum: MOST COMMON CAUSES- i) streptococcal infection ii) sarcoidosis. Other causes- tuberculosis, mycoplasma pneumonia, infectious mononucleosis, drugs- sulfa related drug, OCP, oestrogen; Behcet's disease, CD, UC; lymphoma, leukemia and some others].

7. A 14-year-old girl has developed an itchy, scaly patch on her scalp. She had a similar patch that cleared spontaneously 2years ago. Her aunt has a similar undiagnosed rash on the extensor aspects of her elbows and knees. What is the single most likely diagnosis?
   A. Eczema
   B. Fungal infection
   C. Impetigo
   D. Lichen planus
   E. Psoriasis

Ans. The key is E. Psoriasis. [itchy, scaly patch on scalp are suggestive of scalp psoriasis. Her aunts presentations (similar rash on extensor aspects of her elbow and knees) are also suggestive of psoriasis. It is thought to be an immunological disease].

8. A 78-year-old nursing home resident is revived due to the development of an intensely itchy rash. Examination: white linear lesions are seen on the wrists and elbows and red papules are present on the penis. What is the most appropriate management?
   A. Topical permethrin
   B. Referral to GUM clinic
   C. Topical betnovate
   D. Topical ketoconazole
   E. Topical selenium sulphidehyosine

Ans. The key is A. Topical permathrine. [The intensely itchy rash, scratch marks and burrows on wrist and elbow red papules on penis are suggestive of scabies. Topical permethrine are used to treat it].

9. A 70-year-old woman lives in a nursing home following a stroke has developed reddish scaly rash on her trunk. She has many scratch marks on her limbs and trunk with scaling lesions on her hands and feet. What is the single most appropriate initial treatment?

   A. Aqueous cream

   B. Chlorphenaramine

   C. Coal tar

   D. 1% hydrocortisone ointment

E. Permethrin

Ans. The key is E. Permethrine. [This is a case of scabies and scaly rash denotes the infection of most severe type the crusted or Norwegian scabies. Should be treated with permethrine].

10. A lady who works at a nursing home presents with itching. Exam: linear tracks on the wrist. She says that 2days ago she had come in contact with a nursing home inmate with similar symptoms. What is the mechanism of itching?

    A. Infection

    B. Destruction of keratinocytes

    C. Allergic reaction

    D. Immunosuppression

    E. None

Ans. The key is C. Allergic reaction. [The probable diagnosis is scabies in which there is itching due to allergic reaction to mites (Sarcoptesscabii) waste products].

11. A young man develops itching worse at night and following bathing. Examination: greysish white linear rash can be seen on the wrist and periumbilical area. What is the diagnosis?

    A. Scabies

    B. Polycythemia

    C. Urticarial

    D. Atopic eczema

    E. Lichen planus

Ans. The key is A. Scabies. [Scabies is a skin infestation caused by a mite known as the Sarcoptesscabiei. Untreated, these microscopic mites can live on your skin for months. They reproduce on the surface of your skin and then burrow into it and lay eggs. This causes an itchy, red rash to form on the skin].

12. A middle aged man complains of a node which has been growing on his nose for several months. Now it's firm with central depression. It is 0.6cm in size. What is the single most likely diagnosis?

    A. Basal cell carcinoma

    B. Squamous cell carcinoma

    C. LN

D. Melanoma

E. Kaposi's sarcoma

F. Keratoacanthoma

G. Molluscum contagiosum

Ans. The key is A. Basal cell carcinoma. [A pearly white umbilicated ulcer (with central depression) any where in the face with rolled edges / inverted edge is basal cell carcinoma. Any ulcer which is located above the neck is always basal cell carcinoma until proven otherwise. (Samson note)].

13. A 45-year-old man presented with pruritic purple papules on the flexor surface of his wrist and some white lacy markings on his buccal mucosa. What is the single most likely causative factor?

    A. ALL

    B. Lymphoma

    C. Polycythemia

    D. IDA

    E. Lichen planus

Ans. The key is E. Lichen planus. [White lacy pattern of lesion is characteristic of lichen planus].

14. A 67-year-old builder presents with a persistent nodular lesion on upper part of pinna with some telangiectasia around the lesion. What is the diagnosis?

    A. Basal cell

    B. Squamous cell

    C. Keratocanthoma

    D. Actinic keratosis

    E. Bowens disease

Ans. The key is A. Basal cell ca. [Any ulcer which is located above the neck is always basal cell carcinoma until proven otherwise].

15. A 62-year-old farmer presents with a persistent firm irregular lesion on upper part of pinna which grew over the last few months. What is the most appropriate diagnosis?

    A. Basal cell

B. Squamous cell

C. Keratocanthoma

Ans. The key is A. Basal cell. [Any ulcer which is located above the neck is always basal cell carcinoma until proven otherwise].

16. A 9-year-old child presented with a rash on his skin which didn't respond to antibacterial ointment. What medication should be added next?

    A. Corticosteroid

    B. Antifungal

    C. Emollient

    D. Permethrin

    E. Coal tar

Ans. The key is B. Antifungal. [If a lesion is suspected to be infected should be given antibiotic. but if no response next step is to add an antifungal].

17. A 39-year-old man comes with umbilicated papules on his face. His CD4 count is measured to be 35. What is the single most appropriate option?

    A. Mycobacterium avium intercellular

    B. CMV

    C. Streptokinase

    D. Toxoplasmosis

    E. Pneumocystis jerovici

    F. Moluscum contagiosum

Ans. The key is F. Molluscum contagiosum. [CD4 count 35 is too low indicating immunodeficiency where molluscum contagiosum occurs more easily. Umbilicated papules are feature of molluscum contagiosum].

18. A 23-year-old woman who has had several recent partners has experienced post-coital bleeding on gentle contact. What is the single most likely cause of her vaginal discharge?

    A. Cervical ca

B. Cervical ectropion

C. CIN

D. Chlamydial cervicitis

E. Gonococcal cervicitis

Ans. The key is D. Chlamydia cervicitis.

19. A 29-year-old woman has developed an itchy scaly rash particularly over her wrist with fine white streaks overlying the lesion. Her nails have ridges and her buccal mucosa is lined with a lacy white pattern. What is the single most likely diagnosis?

    A. Psoriasis

    B. Scabies

    C. Urtericaria

    D. Dermatitis herpetiformis

    E. Hyperthyroidism

    F. Lichen planus

Ans. The key is F. Lichen planus. [“Lacy white pattern” is used as a diagnostic description of lichenplanus].

20. A 17-year-old boy is diagnosed with scabies. Which of the following statements regarding scabies is correct?

    A. Is best treated by salicylate emulsion

    B. It can be spread by a droplet infection

    C. It causes itchiness in the skin even where there is no obvious lesion to be seen

    D. It is caused by Staphylococcus aureus

    E. Typically affects the face

Ans. The key is C. It causes itchiness in the skin even where there is no obvious lesion to be seen.

21. An association with HPV is a most characteristic feature of?

    A. Torus

B. Exostosis

C. Pleomorphic adenoma

D. Verruca vulgaris

E. Fibroma

F. Epulis fissuratum

G. Mucocele

H. Pyogenic granuloma

I. Parulis

J. Ranula

Ans. The key is D. Verruca vulgaris. [It is most commonly associated with warts or verruca vulgaris often caused by HPV (human papilloma virus].

22. A 58-year-old man complains of nose disfigurement. He has a history of facial erythema particularly of the cheeks and nose. Papules and pustules have been erupting at intervals over the last 10 years. He admits to a moderate regular consumption of alcohol. Examination: noted to have rhinophyma. The most likely diagnosis is?

    A. Eczema

    B. Herpes simplex

    C. Epidermolysis bullosa

    D. Dermatomyositis

    E. Tinea versicolor

    F. Pemphigus vulgaris

    G. Acne rosacea

    H. Malignant melanoma

    I. Psoriasis

    J. Atopic dermatitis

Ans. The key is G. Acne Rosacea. [Acne Rosacea is characterised by recurrent episodes of facial flushing with persistent erythema, telangiectasia, papules and pustules.It is a chronic acneform disorder of the facial pilosebaceous glands with an increased reactivity of capillaries to heat, causing flushing and eventually telangiectasia.Rhinophyma is an enlarged nose associated with rosacea which occurs almost exclusively in men].

23. A patient has fine nail pitting, small yellow-brown areas of discoloration in the nailbed involving the nails on both hands. These findings are commonly associated with?

    A. Yellow nail syndrome

    B. Leukonychia

    C. Onychomycosis

    D. Lichen planus

    E. Pellagra

    F. Thallium toxicity

    G. Contact dermatitis

    H. Zinc deficiency

    I. Hypoalbuminemia

    J. Psoriasis

Ans. The key is J. Psoriasis. [Characteristic nail changes include pitting, discolouration, subungual hyperkeratosis, crumbling of the nail plate, and onycholysis].

COMPLETED

13. ALCOHOLISM, DRUG ABUSE AND TOXICOLOGY

1. A 34-year-old alcoholic is found passed out in front of a local pub. The ambulance crew informs you that he was sweating when they found him and there were cans of cider lying empty around him. What is the initial stage of investigation?
   A. Capillary blood sugar
   B. CT head
   C. MRI head
   D. ABG
   E. MCV

Ans. The key is A. Capillary blood sugar. [Alcohol induced hypoglycemia can present as this case].

2. A 33-year-old drug addict wants to quit. She says she is ready to stop the drug abuse. She is supported by her friends and family. What drug treatment would you give her?
   A. Benzodiazepines
   B. Diazipoxide
   C. Lithium
   D. Methadone
   E. Disulfiram

Ans. The key is D. Methadone. [Methadone is a synthetic opiate primarily used in the detoxification and maintenance of patients who are dependent on opiates—particularly heroin].

3. A young college student is found in his dorm unconscious. He has tachyarrhythmia and high fever. He also seems to be bleeding from his nose, which on examination shows a perforated nasal septum. What is the most likely diagnosis?
   A. Marijuana OD (over dose)
   B. Cocaine OD
   C. Heroin OD
   D. Alcohol OD
   E. CO poisoning

Ans. Key is B. Cocaine overdose. [Tachyrhythmia, High fever and perforated nasal septum are suggestive features of cocaine overdose. Other features include dilated pupil, chest pain, anxiety, delirium, paranoia etc. Cocaine can even lead to death, which can occur due to a multitude of complications, including heart attack, seizure and stroke].

4. An 18-year-old man is rushed into the ER (emergency room) by his friends who left him immediately before they could be interviewed by staff. He is semiconscious, RR (respiratory rate) 8/min, BP120/70mmHg, pulse60bpm. He is noted to have needle track marks on his arms and his pupils are small. What is the single best initial treatment?
   A. Insulin
   B. Naloxone
   C. Methadone
   D. Gastric lavage

Ans.The key is B. Naloxone. [This is opiate overdose. Due to their effect on the part of the brain which regulates breathing, opioids in high doses can cause respiratory depression and death. An opioid overdose can be identified by a combination of three signs and symptoms referred to as the “opioid overdose triad”. The symptoms of the triad are:

- pinpoint pupils
- unconsciousness
- respiratory depression.

Combining opioids with alcohol and sedative medication increases the risk of respiratory depression and death, and combinations of opioids, alcohol and sedatives are often present in fatal drug overdoses].

5. An 18-year-old female just received her A-Level results and she didn't get into the university of her choice. She was brought into the emergency department after ingestion of 24 paracetamol tablets. Examination: confused and tired. Initial management has been done. Investigations after 24hours: normal CBC, ABG pH7.1, PT 17s, Bilirubin 4umol/L, creatinine 83umol/L. What is the next step in management?
   A. Observation for another 24hours
   B. Refer to psychologist
   C. Give N-Acetylcysteine
   D. Discharge with psychiatry referral
   E. Liver transplantation

Ans. The key is E. Liver transplantation. [King's College Hospital criteria for liver transplantation in paracetamol-induced acute liver failure.

arterial pH <7.3 or arterial lactate >3.0 mmol/L after adequate fluid resuscitation, OR

if all three of the following occur in a 24-hour period:

Creatinine >300 μmol/L.

PT >100 seconds (INR >6.5).

Grade III/IV encephalopathy].

6. Patient with history of alcoholism, ataxic gait, hallucinations and loss of memory. He is given acamprosate. What other drug can you give with this?
   A. Chlordiazepoxide
   B. Thiamine
   C. Diazepam
   D. Disulfiram
   E. Haloperidol

Ans. The key is B. Thiamine. [These are features of wernicke's encephalopathy].

7. A 16-year-old girl is admitted after taking a paracetamol over dose 4 hour ago. She has consumed large amounts of alcohol. Her plasma paracetamol concentration is just below the concentration that would suggest treatment. What should be the treatment option for her?
   A. Refer to psychiatry ward
   B. Refer to medical ward
   C. N-acetylcystine
   D. Serum plasma paracetamol
   E. No further investigation

Ans. The key is A. Refer to psychiatry ward. [Short term acute alcohol consumption causes enzyme inhibition as in present case and even then paracetamol level is under treatment level. So the patients drug level is in safe side but simultaneous drug overdose and alcohol consumption needs psychiatric evaluation and hence the option here is A].

8. In a man who is neglected and alcohol dependent, whith high suicidal risk, which factor can increase this risk further?
   A. Alcohol dependence
   B. SSRI
   C. S]moking
   D. Agoraphobia
   E. Court involvement

Ans. The key is B. SSRI. [He is already alcohol dependent. So further (additional) risk factor is SSRI (SSRI has well known risk of developing suicidal ideation. Arrest and court involvement is also a risk factor and in a neglected person it is also a strong risk factor].

9. A young woman was brought to the hospital. On examination she has low temperature and tremor. She says when she closes her eyes, she can see colors. What drug has been used?
   A. Amphetamines
   B. LSD
   C. Cocaine
   D. Heroine
   E. Ecstasy

Ans. The key is B. LSD.

10. A 40-year-old man who is a chronic alcoholic with established liver damage, has been brought to the hospital after an episode of heavy drinking. He is not able to walk straight and is complaining of double vision and is shouting obscenities and expletives. What is the most likely diagnosis?
    A. Korsakoff psychosis
    B. Delirium tremens
    C. Wernickes encephalopathy
    D. Tourettes syndrome
    E. Alcohol dependence

Ans. The key is C. Wernicke's encephalopathy. [triad of i) ophthalmoplegia, ii) ataxia iii) confusion].

11. A 50-year-old smoker and heavy drinker presents with complaints of racing heart. A 24 hour ECG comes out normal. What is your next step in management?
    A. ECHO
    B. Reassure
    C. Stress test

Ans. The key is B. Reassure. [Smoking and alcohol excess can cause palpitation without any recognizable arrhythmia and for this no treatment is required].

12. A teenage girl who was 'fine' until her boyfriend said he didn't want the relationship anymore. She took 10 tablets of paracetamol in front of her mother after taking alcohol. What should you do?
    A. Refer to psychiatry
    B. Counselling

C. GP to sort out family issues
D. Return to work to relieve her anger

Ans. The key is A. Refer to psychiatry. [10 tablets of paracetamol is not a life threatening toxic dose and simultaneous drug overdose and alcohol consumption needs psychiatric evaluation].

13. A 65-year-old known alcoholic is brought into hospital with confusion, aggressiveness and ophthalmoplegia. He is treated with diazepoxide. What other drug would you like to prescribe?
    A. Antibiotics
    B. Glucose
    C. IV fluids
    D. Disulfiram
    E. Vit B complex

Ans. The key is E. Vitamin B complex.

14. A 21-year-old girl looking unkempt, agitated, malnourished and nervous came to the hospital asking for painkillers for her abdominal pain. She is sweating, shivering and complains of joint pain. What can be the substance misuse here?
    A. Alcohol
    B. Heroin
    C. Cocaine
    D. LSD
    E. Ecstasy

Ans. The key is B. Heroin. [agitation, nervousness, abdominal cramp, sweating, shivering and piloerection, arthralgia these are features of heroin withdrawal].

15. A 54-year-old man with alcohol dependence has tremor and sweating 3 days into a hospital admission for a fracture femur. He is apprehensive and fearful. What is the single most appropriate treatment?
    A. Acamprossate
    B. Chlordiazepoxide
    C. Lorazepam
    D. Lofexidine
    E. Procyclidine

Ans. The key is B. Chlordiazepoxide. C. Lorazepam is also correct key! [Diagnosis is alcohol withdrawal symptom. According to NICE 1st line treatment is oral lorazepam and if symptom persists or oral medication is declined, give parenteral lorazepam, haloperidol or olanzapine. According to OHCM 1st line treatment is chlordiazepoxide].

16. A 30-year-old man complains of episodes of hearing music and sometimes threatening voices within a couple of hours of heavy drinking. What is the most likely diagnosis?
    A. Delirium tremens
    B. Wernicke's encephalopathy
    C. Korsakoff's psychosis

D. Alcohol hallucinosis
E. Temporal lobe dysfunction

Ans. The key is D. Alcoholic hallucinosis. [Alcohol hallucinosis can occur during acute intoxication or withdrawal. It involves auditory and visual hallucinations, most commonly accusatory or threatening voices].

17. A 72-year-old woman who had a repair of strangulated femoral hernia 2 days ago becomes noisy, aggressive and confused. She is afebrile, CBC normal apart from raised MCV. What is the most likely diagnosis?
    A. Electrolyte imbalance
    B. Delirium tremens
    C. Wernicke's encephalopathy
    D. Infection toxicity
    E. Hypoglycemia

Ans. The key is B. Delirium tremens. [Electrolyte imbalance may cause confusion but not aggressiveness; infection toxicity will cause high fever, low BP, rash etc which are absent here. Abstinance from alcohol in the hospital caused delirium tremens (chronic alcoholism is supported by high MCV) here].

18. An 18-year-old previously well student is in his 1st year at university. He has been brought to the emergency department in an agitated, deluded and disoriented state. What is the most probable reason for his condition?
    A. Drug toxicity
    B. Delirium tremens
    C. Infection toxicity
    D. Electrolyte imbalance
    E. Head injury

Ans. The key is A. Drug toxicity. [Young age and 1st year in university is likely to point towards drug abuse].

19. A 62-year-old man who was admitted for surgery 3 days ago suddenly becomes confused. His attention span is reduced. He is restless and physically aggressive and picks at his bed sheets. What single aspect of the patients history recovered in his notes is most likely to aid in making the diagnosis?
    A. Alcohol consumption
    B. Head trauma
    C. Hx of anxiety
    D. Prescribed med
    E. Obvious cognitive impairment

Ans. The key is A. Alcohol consumption. [abstinence from alcohol in the hospital lead to delirium tremens]. Ans. The key is A. Alcohol consumption. [abstinence from alcohol in the hospital lead to delirium tremens].

20. A 20-year-old boy is brought by his parents suspecting that he has taken some drug. He is agitated, irritated and can't sleep. Exam: perforated nasal septum. Which of the following is the most likely to be responsible for his symptoms?
    A. Heroine
    B. Cocaine
    C. Ecstasy/MDMA/amphetamine
    D. Alcohol
    E. Opioids

Ans. The key is B. Cocaine. [drug abuse with perforated nasal septum indicates cocaine abuse].

21. A 34-year-old man with multiple sclerosis has taken an over dose of 100 tablets of paracetamol with intent to end his life. He has been brought to the emergency department for treatment but is refusing all intervention. What is the next step?
    A. Assessment
    B. Evaluate pt's capacity to refuse treatment
    C. Establish if pt has a prv mental illness

Ans. The key is B. Evaluate patients capacity to refuse treatment.

22. A 37-year-old woman was admitted for femur fracture repair after a RTA. On the 4th post-operative day she became confused and starts picking on her bed sheets and complains of seeing spiders all over. What is the most likely diagnosis?
    A. Delirium tremens
    B. Wernickes encephalopathy
    C. Korsakoffs psychosis
    D. Psychotic depression

Ans. The key is A. Delerium tremens. [withdrawal of alcohol due to hospital admission lead to delirium tremens. Warnicke's encephalopathy has triad of i) mental confusion ii) abnormal eye movements & iii) unsteady gait. Korsakoff's syndrome cannot be diagnosed until the person has stopped drinking alcohol for several weeks, to enable the immediate symptoms of alcohol intoxication and withdrawal to subside. Features of Korsakoffs psychosis i) dementia, loss of short term memory ii) difficulty in acquiring new information or learning new skills iii) personality change iv) confabulation].

23. A 50-year-old man complains of being pursued by the police for a crime he denies committing. He has poor concentration and impaired short-term memory. He admits to drinking large amounts of alcohol for the last 20yrs. What is the most probable diagnosis?
    A. Dementia
    B. Hallucination
    C. Wernicke's encephalopathy
    D. Schizophrenia
    E. Korsakoff psychosis

Ans. The key is E. Korsakoff psychosis. [Dementia, i.e. short term memory loss is seen in korsakoff psychosis].

24. An alcoholic who has completely given up drinking hears voices. What is the most appropriate treatment?
    A. Olanzapine
    B. Diazepam
    C. Acamprosate
    D. Disulfiram
    E. Haloperidol

Ans. The key is B. Diazepam. [A case of delirium tremens. Treated with benzodiazepines like chlordiazepoxide or diazepam].

25. A 62-year-old male is brought to the emergency department by his daughter because of his persistent lying. He is a known alcoholic and has been admitted recently with delirium tremens. On questioning, he denies any problem with memory. He knows his name and address and states that he was at the betting shop this morning, but his daughter interjects calling him a liar explaining that he was at her home. What is the most likely diagnosis?
    A. Ganser syndrome
    B. Cotard syndrome
    C. Wernicke's encephalopathy
    D. Korsakoff psychosis
    E. Alcohol withdrawal

Ans. The key is D. Korsakoff psychosis. [In Korsakoff psychosis there is confabulation (a memory disturbance, defined as the production of fabricated, distorted or misinterpreted memories about oneself or the world, without the conscious intention to deceive) which may present like this].

26. A 65-year-old known alcoholic is brought into the hospital with confusion, aggressiveness and ophthalmoplegia. He is treated with diazepoxide. What other drug would you like to prescribe?
    A. Antibiotics
    B. Glucose
    C. IV fluids
    D. Disulfiram
    E. Vit B complex

Ans. The key is E. Vit B complex. [This is a case of Wernicke's encephalopathy which is treated with Vit B complex].

27. A 53-year-old man was admitted to the hospital for investigation of hemoptysis. 3 days after admission hedeveloped alternating state of consciousness, ataxic gait and some visual problems. What is themost appropriate management of this patient?
    A. Acamprosate
    B. Chlordiazepoxide
    C. Diazepam
    D. High potent vitamins
    E. Disulfiram

Ans. The key is D. High potent vitamins. [This is a case of Wernicke's encephalopathy (as hospital admission prevented him from consuming alcohol) and the treatment for this is high potent vitamins].

28. A young lady after a heavy bout of drinking last night comes to the emergency department with dizziness, abdominal pain, vomiting blood with cool peripheries. After initial resuscitation, oxygen and fluids, she still continues to bleed with pulse130bpm and BP85/58mmHg. What would be your next best management?
    A. Clotting screen
    B. US
    C. CT
    D. Endoscopy
    E. Omeprazole

Ans. The key is D. Endoscopy. [In young it is unlikely to get oesophageal varices rather than the bleeding is from probable gastric erosion and endoscopy should be done (diagnostic and therapeutic- like sclerotherapy].

29. A 25-year-old male with a history of frequent binge drinking presents 4 hour after having had a take away meal following a nights heavy drinking. He complains of nausea and has vomited on several occasions.After the last vomiting episode, he vomited approximately a cupful of blood. On admission, he smells of alcohol, pulse100bpm, BP140/80mmHg. He has some tenderness in the epigastrium. What is your diagnosis?
    A. Gastric carcinoma
    B. Mallory-weiss tear
    C. Esophageal carcinoma
    D. Esophageal varices
    E. Peptic ulceration

Ans. The key is B. Mallory-weiss tear. [Repeated retching and vomiting is a recognized cause of Mallory-weiss tear which is supported here by vomiting a cupful of blood].

30. An 8-year-old child swallowed 12 tablets of paracetamol 4 hour ago. Serum paracetamol levels when tested were at critical level. What would you do next?
    A. Activated charcoal
    B. IV N-acetylcysteine
    C. Gastric lavage
    D. Observation only

Ans. The key is B. IV N-acetylcystine. [As 4 hour paracetamol level is at critical level start IV N-acetyltine at once].

31. A 24-year-old man has been found unconscious in an alleyway with a respiratory rate 6bpm and heart rate 60bpm. His pupils are constricted. What is the best treatment?
    A. Methadone
    B. Naloxone
    C. Naltrexone
    D. Thiamine

E. Glucose

Ans. The key is B. Naloxone. [Respiratory depression and miosis points towards opiates poisoning for which antidote naloxone is given].

32. A 45-year-old man has been admitted for an elective hernia surgery. 3 days later he presents with agitation, sweating, aggressiveness, and complains of seeing snakes on the hosp wall. Chlordiazepoxide has been started for this patient. What is the most appropriate next step?
    A. Diazepam
    B. Acamprosate
    C. Disulfiram
    D. Thiamine

Ans. The key is D. Thiamine. [Diagnosis is delirium tremens. So following chlordiazepoxide thiamine is the appropriate next step].

33. A lady who is alcohol dependent wants to quit but wants someone to encourage her. What would you do?
    A. Medication
    B. Refer to social services
    C. Refer to psychology
    D. CBT

Ans. The key is B. Refer to social services.

34. A couple has just finished their detox regime and wants a drug with a pharmacological action to serve as a deterrent when they take alcohol. What drug is the appropriate choice?
    A. Disulfiram
    B. Acamprosate
    C. Vitamin supplement
    D. Naloxone
    E. Naltrexone

Ans. The key is A. Disulfiram. [Disulfirum is a deterrent which makes alcohol intake unpleasant].

35. A 33-year-old lady who is a drug addict wants to quit. She says she is ready to stop the drug abuse. She is supported by her friends and family. What drug treatment would you give her?

    A. Benzodiazepines
    B. Diazipoxide
    C. Lithium
    D. Methadone
    E. Disulfiram

    Ans. The key is D. Methadone. [Methadone is an opioid medication. Methadone reduces withdrawal symptoms in people addicted to heroin or other narcotic drugs without causing the

"high" associated with the drug addiction and thus used to help a drug addict to quit from drug addiction].

36. A 78-year-old retired teacher was admitted for a hernioplasty procedure. After the operation he became agitated, aggressive and confused. What is the most appropriate management?

A. Diazepam

B. Chlordiazepoxide

C. Vit B

D. Clozapine

E. Thiamine

Ans. The key is B. Chlordiazepoxide. [Diagnosis is delirium tremens.Treatment is with chlordiazepoxide].

37. A 46-year-old man who is a heavy drinker is brought to the emergency department in a drowsy state. He is responding vaguely to questions. Examination: nystagmus and hyperreflexia. MCV 103fl. What is the most likely cause for his cognitive impairment?

A. B1 deficiency

B. B12 deficiency

C. Folate deficiency

D. B6 deficiency

E. Alcohol withdrawal

Ans. The key is A. B1 deficiency. [Presence of confusion and nystagmus indicates Wernicke's encephalopathy caused by thiamin (vit. B1) deficiency].

38. A 56-year-old alcoholic man who has increased the amount of alcohol he is using wants to attend his daughter's wedding that is in 2 weeks. He is now coming to you for help. How would you help him?

A. Acamprosate
B. Refer to clinical psychologist
C. Refer to GP
D. Despiramine
E. Refer to community mental health support group.

Ans. The key is A. Acamprosate. [If the patient stop alcohol without any supportive treatment there will occur withdrawal symptoms. For the presented situation Acamprosate can help by stopping alcohol

without producing withdrawal symtoms (by restoring brain chemical derangement caused by alcohol which is responsible for withdrawal symptoms)].

39. A patient, 50-year-old smoker and heavy drinker, presents with complaints of racing heart. A 24 hours EKG comes out normal. What is your next step in management?
    A. Echo
    B. Reassure
    C. Stress test

Ans. The key is B. Reassure. [Racing heart or palpitation is a common phenomenon in alcoholics which is not serious or harmful. So reassure the patient].

40. A 77-year-old publican was admitted for an appendectomy. Post-operation he becomes confused, agitated and starts to pick at things. He is then given an IV drug which settles this confusion. Which of the following drugs was given for his confusion?

A. Diazepam

B. Chlordiazepoxide

C. Thiamine

D. Vit B

Ans. The key is B. Chlordiazepoxide. [Patient is alcoholic. On admission abstinence from alcohol caused this withdrawal symptom. Agitation, confusion and pick at things are suggestive of delirium tremens which is treated with Chlordiazepoxide].

41. A 28-year-old woman with history of drug addiction wants to start a family and have a baby. She would like to stop taking heroin and asked for something to help her stay away from it. What drug treatment would you give her?

    A. Naloxone
    B. Acamprosate
    C. Methadone
    D. Chlordiazepoxide
    E. Naltrexone

Ans. The key is C. Methadone. [Methadone is a powerful synthetic analgesic drug which is similar to morphine in its effects but less sedative and is used as a substitute drug in the treatment of morphine and heroin addiction].

42. A homeless person is found wandering on the street. He had ataxic gait, nystagmus and opthalmoplegia. He looked unkempt and his clothes had a sweaty odour. He had a dry mucous embrane with a BP 118/70mmHg and PR (pulse rate) 90bpm. Blood sugar level 8. Alcohol breath test -ve. What would the most imp initial management?
    A. IV insulin

B. Vit B complex
C. Bolus IV 0.9%NS
D. IV dextrose
E. Antibiotics

Ans. The key is B. Vit B complex. [This is wernicke's encephalopathy due to alcohol withdrawal, so Vit B complex should be given. This occurs mainly due to thiamine deficiency].

43. A 45-year-old man has undergone detox and now wants a drug to stop him from craving alcohol. What medication would be that drug of choice?
    A. Disulfiram
    B. Acamprosate
    C. Thiamine
    D. Naloxone
    E. Diazepam

Ans. The key is B. Acamprosate. [Disulfirum is a deterrent which does not reduce craving. Acramposate by restoring deranged brain chemical reduces craving].

44. A 45-year-old man, known to be chronically addicted to alcohol, presents in the emergency department and reports two episodes of vomiting fresh bright red blood in the previous 6 hours. He estimated the volume blood vomited at each bout to be more than 500mls. Clinical exam: the radial pulse 120/min, BP 90/60mmHg. There is no mass or tenderness in the epigastrium. The liver is palpable for 3 cm below the costal margin and not tender. The patient is not jaundiced. The physician resuscitates the patient with oxygen by face mask, rapid infusion of intravenous normal saline while he requests for haemoglobin level and whole blood for transfusion. Which is next appropriate step in management?
    A. Barium Swallow
    B. Exploratory laparotomy
    C. CT scan of the abdomen
    D. Upper gastrointestinal endoscopy

Ans. The key is D. Uppergastrointestinal endoscopy. [The likely diagnosis is bleeding oesophageal varices which should be diagnosed by endoscopy and if needed stappling can be done with endoscope].

45. A-16-years old boy was brought to hospital in a comatose state having taken methadone belonging to his sister. He was given naloxone and rapidly became alert. Some hours later, he gradually becomes semi-conscious again.What is the SINGLE most likely reason for this patient becoming semi-conscious again in hospital?
    A. Methadone hepatotoxicity has caused acute liver failure
    B. Methadone is eliminated from the body more slowly than naloxone
    C. Naloxone is a partial agonist at the central nervous system opioid receptor
    D. The patient has misused another substance that has caused an intracranial bleed
    E. The patient has misused another substance that is absorbed more slowly than methadone

Ans. The key is B. Methadone is eliminated from the body more slowly than naloxone (short t1/2i.e. short t half life).

46. A 38-year-old man with longstanding alcohol dependence has vertigo and a tremor every morning. What is the SINGLE most likely diagnosis?
    A. Anxiety
    B. Benign positional vertigo
    C. Cerebellar degeneration
    D. Optic neuritis
    E. Temporal lobe epilepsy

Ans. The key is C. Cerebellar degeneration. [chronic alcohol abuse can leads to temporary or permanent cerebellar damage].

47. A 22-year-old says she has taken about 40 tablets of paracetamol 3 hours ago. Her heart rate is 110bpm, BP110/80mmHg and respiratory rate 22bpm. What's the initial management?
    A. Activated charcoal
    B. N-acetyl cysteine
    C. Gastric lavage
    D. Wait for 4h paracetamol level

Ans. The key is D. Wait for 4h paracetamol level.

48. A 17-year-old lady presents to the A&E department after taking 45 tablets of paracetamol following an argument with her boyfriend. The incident happened 10 hours ago. What is the single most appropriate next action?
    A. Activated charcoal
    B. Check paracetamol level
    C. N-acetylcysteine
    D. Observe
    E. Do blood tests after 4 hours

Ans. C. N-acetylcisteine. [If >8–24h and suspicion of large overdose (>7.5g) err on the side of caution and start N-acetylcysteine, stopping it if level below treatment line and INR/ALT normal]. Ref: OHCM, 9th edition, page-856.

COMPLETED

14.GENETICS AND METABOLIC DISEASES

1. A 5-year-old with recurrent chest pain, finger clubbing with offensive stool. Choose the single most likely investigation?

    A. Endomyseal/Alpha glidin antibody

    B. Sweat test

C. Barium meal

D. ECG

E. Glucose tolerance test

Ans. The key is B. Sweat test. [Recurrent chest pain from frequent lung infections including pneumonia or bronchitis."Clubbing" of the fingers is a classic features of Cystic Fibrosis, although not present in many patients. The digestive enzymes are not being produced, food is not adequately digested (malabsorption) and excess fat and protein is lost in the stools, making them bulky, oily, smelly and difficult to flush away].

2. A patient with hepatocellular carcinoma has raised levels of ferritin. What is the most probable cause?

   A. Hemochromatosis

   B. A1 antitrypsin def

   C. Cystic fibrosis

Ans. The key is A. Haemochromatosis. [Hemochromatosis itself is a cause of hepatocellular carcinoma and associated with raised level of ferritin. Serum ferritin levels elevated higher than 200 mcg/L in premenopausal women and 300 mcg/L in men and postmenopausal women indicate primary iron overload due to hemochromatosis, especially when associated with high transferrin saturation and evidence of liver disease. Ferritin concentration higher than 1000 mcg/L suggests liver damage with fibrosis or cirrhosis].

3. A 30-year-old man and wife present to the reproductive endocrine clinic because of infertility. The man is tall, has bilateral gynecomastia. Examination of the testes reveals bilateral small, firm testes. Which of the following investigation is most helpful in diagnosis?

   A. CT of pituitary

   B. Chromosomal analysis

   C. Measure of serum gonadotropins

   D. Measure of serum testosterone

Ans. The key is B. Chromosomal analysis. [The diagnosis is Klinefelter’s syndrome. (xxy). The points in favour are: i) Infertility ii) Tall stature iii) Bilateral gynaecomastia iv) Bilateral small firm testes].

4. An 8-year-old child who is tall for his age and has a refractory error for which he wears glasses has presented with severe crushing chest pain. What is the most likely diagnosis?

   A. Fragile X syndrome

B. Prader-willi syndrome

C. DiGeorge syndrome

D. Marfans syndrome

Ans. The key is D. Marfans syndrome. [Cause of severe crushing chest pain may be aortic dissection or angina. Most common cardiac abnormalities in Marfans syndrome are: dilatation of the aorta and mitral regurgitation. Other features are tall and thin stature, with long arms, legs, fingers and toes. They also typically have flexible joints and scoliosis. There may be partial lens dislocation, where the lens is shifted out of its normal position].

5. A 2-months-old baby who has ambiguous genitalia presents to the emergency department with vomiting. Lab results: Na+ 125mmol/L, K+ 6mmol/L. What is the most likely diagnosis?

   A. Fragile X syndrome

   B. Turners syndrome

   C. Noonan syndrome

   D. Congenital adrenal hyperplasia

Ans. The key is D. Congenital adrenal hyperplas. [i) ambiguous genitalia ii) salt wasting manifested as hyponatremia and hyperkalemia (In mild forms of salt-wasting adrenal hyperplasia, salt wasting may not become apparent until an illness stresses the child). Here hyperkalaemiainspite of vomiting is indicating the disease].

6. A 3-months-old infant has presented with recurrent infections. He has abnormal facies and CXR shows absent thymic shadow. What is the most likely diagnosis?

   A. Downs syndrome

   B. Fragile X syndrome

   C. DiGeorge syndrome

   D. Marfans syndrome

Ans. The key is C. DiGeorge syndrome. [Points in favour: i) Early age of onset ii) abnormal facies iii) absent thymic shadow on Chest X-ray iii) history of recurrent infection [Infections are common in children due to problems with the immune system's T-cell-mediated response that in some patients is due to an absent or hypoplastic thymus]. In newborn can be recognized by convulsions from hypocalcaemia due to malfunctioning parathyroid glands and low level of parathyroid hormones].

7. A neonate’s CXR shows double bubble sign. Examination: low set ears, flat occiput. What is the most likely diagnosis?

A. Downs syndrome
B. Fragile X syndrome
C. Turner's syndrome
D. DiGeorge syndrome

Ans. The key is A. Down's syndrome. [Double bubble sign indicate duodenal atresia which is a common association of Down's syndrome].

8. A child presents with blue marks on the sclera, short stature and heart murmur. What is the diagnosis?
    A. Osteogenesis imperfect
    B. Hypopituitarism
    C. VSD
    D. Achondrogenesis
    E. Dwarfism

Ans. The key is A. Osteogenesis imperfecta. [Osteogenesis imperfecta (OI), also known as brittle bone disease, is a group of genetic disorders that mainly affect the bones. It results in bones that break easily. OI may have joint hyperlaxity; muscle weakness; chronic, unremitting bone pain; and skull deformities (eg, posterior flattening) due to bone fragility during infancy. Limb shortening and progressive deformities can occur, and patients have a triangular face with frontal and temporal bossing; malocclusion is common. The sclera have variable hues commonly blue].

9. A 7-year-old is brought by his mother who says that he was well at birth but has been suffering from repeated chest and GI infections since then. She also says that he is not growing well for this age. What is the likely condition of this child?
    A. CF (cystic fibrosis)
    B. SCID (severe combined immunodeficiency)
    C. Primary Tcell immunodeficiency
    D. Primary Bcell immunodeficiency
    E. Malabsorption

Ans. The key is A. cystic fibrosis. [CF involves in production of sweat, respiratory mucous, digestive fluid and mucous. These secretion becomes thick than normal predisposing to lung and GI infections since birth].

10. A 7-year-old child presented with chronic cough and is also found to be jaundiced on examination. What is the most likely diagnosis?
    A. Congenital diaphragmatic hernia
    B. Congenital cystic adenematoid malformation
    C. Bronchiolitis
    D. RDS
    E. Alpha 1 antitrypsin deficiency

Ans. The key is E. Alpha 1 antitrypsin deficiency. [Unexplained liver disease with respiratory symptoms are very suggestive of AATD].

11. An 8-year-old boy is clinically obese. As a baby he was floppy and difficult to feed. He now has learning difficulties and is constantly eating despite measures by his parents to hide food out of reach. What is the most probable diagnosis?
    A. Cushing's syndrome
    B. Congenital hypothyroidism
    C. Prader Willi syndrome
    D. Lawrence moon biedel syndrome
    E. Down's syndrome

Ans. The key is C. Prader Willi syndrome. [Prader Willi syndrome rare congenital disorder characterized by learning difficulties, growth abnormalities, and obsessive eating, caused especially by the absence of certain genes normally present on the copy of chromosome 15 inherited from the father].

12. A 32-year-old female with axillary freckles and café au lait spots wants to know the chances of her child also having similar condition.
    A. 1:2
    B. 1:4
    C. No genetic link
    D. 1:16
    E. Depends on the genetic make up of the partner

Ans. The key is E. Depends on genetic make up of the partner. [Depends on the make up of the partner, ideally it's 1:2 since it's autosomal dominant with complete penetrance but if the patients spouse also has neurofibromatosis, it raises it to at least 75% with a possible 100%].

13. An old man having type 2 diabetes mellitus with increased skin tanning, heart failure and having high ferritin (hemochromatosis) level is refusing treatment. Where is the first site of cancer?
    A. Testes
    B. Adrenal
    C. Liver
    D. Pancreas

Ans. The key is C. Liver. [Diagnosis is hemochromatosis. Hemochromatosis is the abnormal accumulation of iron in parenchymal organs, leading to organ toxicity. It is the most common autosomal recessive genetic disorder and the most common cause of severe iron overload leading to hepatomegaly, liver cirrhosis and liver cancer, hyperpigmentation, diabetes mellitus, arthropathy, cardiomyopathy etc.].

14. A 38-year-old man has had a liver biopsy as part of investigation for abnormal LFTs. The pathologist report states: special stains demonstrate the presence of a very large amount of iron pigment within the hepatocytes. What single condition is identified by the pathologists report?
    A. Alpha 1 antitrypsin deficiency
    B. Hemangioma
    C. Hemochromatosis
    D. Hemosiderosis
    E. Wilson's disease

Ans. The key is C. Hemochromatosis. [In hemochromatosis distribution pattern of iron in liver biopsy by pearl's stain is more prominent iron granules in periportal hepatocyte and relative sparing of kupffer cells and decreased intensity near the central vein. By contrast iron overload in hemosiderosis causes to accumulation of iron granules predominantly in kupffer cells and more in central area rather than peripheral hepatocyte. In given case there are large amount of iron pigment in hepatocyte which is diagnostic of hemochromatosis].

15. A 14-year-old girl presents with primary amenorrhea and a short stature. What is the most likely diagnosis?
    A. Down's syndrome
    B. Klinefeltner's syndrome
    C. Turner's syndrome
    D. Fragile X syndrome
    E. Normal finding

Ans. The key is C. Turner's syndrome. [Down's syndrome and Fragile x syndrome don't have primary amenorrhea. Klienfelters syndrome patients are tall males. So the likely diagnosis is Turner's syndrome].

16. An asymptomatic 56-year-old man who has never consumed alcohol came for a routine checkup. Examination: increased skin pigmentation, spider angioma, cardiomegaly, S3 gallop, liver firm with 8cm span, no ascites. He is in the risk of which condition?
    A. Cerebellar degeneration
    B. Werniecke's encephalopathy
    C. Renal failure
    D. Hepatoma
    E. Hepatic vein thrombosis

Ans. The key is D. Hepatoma. [Increased skin pigmentation, features of chronic liver disease (spider angioma), Cardiomyopathy (cardiomegaly, S3 gallop), Enlarged liver these are suggestive of Haemochromatosis. If cirrhosis, 22–30% gethepatocellular cancer].

17. An 8-week-old baby boy is noted to be jaundiced. He is breast-feeding well and has gained 300 g since birth. His stools are yellow and his urine is pale straw colored. What is the most likely diagnosis?
    A. Galactosemia
    B. Biliary atresia
    C. G6PD deficiency
    D. Breast milk jaundice
    E. Congenital viral infection

Ans. The key is A. Galactosemia. [Galactosemia is a family of genetic disorders that result from compromised ability to metabolize the sugar galactose; the term "galactosemia" literally means too much galactose in the blood. Biliary atresia causes obstructive picture where stools are pale and urine becomes dark. Hemolytic disorder like G6PD or spherocytosis causes appearance of jaundice in 1st 24 hours. In breastmilk jaundice, jaundice develops in 2nd week. Also congenital viral infection (TORCH) occurs in 1st 24 hours. Here there is failure to thrive also. So likely cause in the presented case is Galactosemia].

18. A young tall man and his wife are trying for babies and present at the infertility clinic. On investigation the man has primary infertilitiy and azoopermia. What other investigation should be done?
    A. Testosterone
    B. LSH
    C. FSH
    D. Estradiol
    E. Karyotyping

Ans. The key is E. Karyotyping. [The likely diagnosis is Klinefelter's syndrome for which Karyotyping should be done to make the diagnosis established].

19. A 28-year-old lady with a family history of cystic fibrosis comes for genetic counselling and wants the earliest possible diagnostic test for cystic fibrosis for the baby she is planning. She is not in favor of termination. What would you recommend for her?
    A. CVS (Chorionic Villous Sampling)
    B. Amniocentesis
    C. Pre-implantation genetic diagnosis
    D. Chromosomal karyotyping
    E. Maternal serum test
    F. Reassure

Ans. C. Pre-implantation genetic diagnosis. [Patient is not yet pregnant but planning for pregnancy. Earliest possible diagnostic test for cystic fibrosis is Pre-implantation genetic diagnosis. Preimplantation genetic diagnosis (PGD) is a procedure used prior to implantation to help identify genetic defects within embryos created through in vitro fertilization to prevent certain diseases or disorders from being passed on to the child].

20. A 7-year-old presented with chronic cough and is also found to be jaundiced on exam. What is the most likely diagnosis?
    A. Congenital diaphragmatic hernia
    B. Congenital cystic adenomatoid malformation
    C. Bronchiolitis
    D. RDS
    E. Alpha 1 antitrypsin deficiency

Ans. The key is E. Alpha 1 antitrypsin deficiency. [In those with unexplained liver disease with or without respiratory symptoms should be evaluated for AATD].

21. Mother having 2 children with CF. What is the risk of getting another baby?
    A. 1:2
    B. 1:8
    C. 1:4
    D. 1:16
    E. 1:1

Ans. The key is C. 1:4. [Cystic fibrosis is an autosomal recessive disease. If both parents are carrier there is 1:4 chance of risk of occurrence of the disease for each child].

22. Healthy parents have 2 children, a child with cystic fibrosis and a healthy child. They want to have another child. What are the chances of that child being a carrier?
    A. 1:4
    B. 1:2
    C. 2:3
    D. 1:8
    E. 1:16

Ans. The key is B. 1:2. [As the parents have a child with cystic fibrosis and they are healthy both of them are carrier. It is an autosomal recessive disease where if both parents are carrier mode of inheritence is as follows: Chance of being healthy child 1:4, Chance of being diseased 1:4 and chance of being carrier 1:2].

23. The biological parents of a child with CF (cystic fibrosis) come to you to know about the chances of their future children with the same disease. What would you say to them?
    A. There is a 1:4 chance that your future child will have this disease
    B. All their unaffected children will be carriers of CF
    C. Nothing can be predicted
    D. It can be diagnosed 100% antenatally

Ans. The key is A. There is a 1:4 chance that your future child will have this disease. [It is autosomal recessive disease. As one child is affected both parents are carrier. So in this case next child will be normal in 1:4 case, carrier in 1:2 cases and diseased in 1:4 cases].

24. A young anxious mother of a 10 month boy comes to you and requests a test for CF (cystic fibrosis). What is the most appropriate investigation?
    A. Sweat test
    B. Heel prick test
    C. Breath test
    D. CXR

Ans. The key is A. Sweat test. [The sweat test measures the concentration of chloride that is excreted in sweat. It is used to screen for cystic fibrosis (CF). Due to defective chloride channels, the concentration of chloride in sweat is elevated in individuals with cystic fibrosis].

25. A 26-year-old man with history of hereditary hemorrhagic telengectasia is planning to start a family. What is the mode of inheritance?
    A. AD with incomplete penetrance
    B. Autosomal co-dominant
    C. AR with incomplete penetrance
    D. AD (autosomal dominant)
    E. AR (autosomal recessive)

Ans. The key is D. AD [Hereditary hemorrhagic telangiectasia hasan autosomal dominant mode of inheritance].

26. A 6-year-old boy presents with jaundice following treatment with sulphathiazole. Investigations suggest that the jaundice is due to haemolysis caused by G6DP deficiency. Which is true regarding etiology of G6DP deficiency?
    A. Inherited as autosomal dominant condition
    B. Inherited as sex-linked dominant condition
    C. Inherited as sex-linked recessive condition
    D. Results from auto-antibodies to red cell antigens

Ans. The key is C. Inherited as sex-linked recessive condition.

27. A 6-year-old boy has been noticed to have problems with co-ordinating his voluntary movements over the last two years. He has a waddling gait and needs to support himself on his hands when rising from the floor. He has larger calves than other boys but he runs more slowly. Which is the most likely diagnosis?
    A. Myotonia
    B. Myasthenia gravis
    C. Duchenne muscular dystrophy
    D. Muscular atrophy

Ans. The key is C. Duchenne muscular dystrophy. [The child having difficulty with walking, running, jumping and climbing stairs. Walking may look different with a 'waddling' type of walk. The boy may be late in starting to walk (although many children without DMD also walk late).

When you pick the child up, you may feel as if he 'slips through your hands', due to looseness of the muscles around the shoulder.

The calf muscles may look bulky, although they are not strong.

As he gets older, the child may use his hands to help him get up, looking as if he is 'climbing up his legs'. This is called 'Gower's sign'].

28. A 59-year-old man has shown a change in his mood and personality over a 9 month period. He hassubsequently developed difficulty with memory and concentration, and then progressive fidgetymovements of his limbs and facial musculature. By the time of medical assessment he has franc choreiform movements and a mini-mental state exam of 21/30. Other exam is normal. He wasadopted and therefore no information on his family history is available. He has 3 adult children (27, 30,33) of whom the 2 youngest are asymptomatic. However, the eldest son has recently been investigatedby the neurology department for slightly erratic behavior and fidgety restless movements of both legs.Based on the likely clinical diagnosis, which one of the following genetic patterns is most likely?
    A. AD inheritance with anticipation
    B. AD with variable penetrance
    C. AR
    D. X-linked

E. Mitochondrial disorder

Ans. The key is A. AD inheritance with anticipation. [Patient is suffering from Huntingtons disease and that is autosomal dominant with anticipation which means a genetic disorder is passed on to the next generation, the symptoms of the genetic disorder become apparent at an earlier age with each generation].

29. A middle aged woman has severe collapse of the right femoral head requiring replacement. The removed femoral head is sent for pathology and is found to contain enlarged fat cells. The pathologist explains that this is the likely cause of the patient's femoral head collapse. A likely aetiology is
    A. Septic emboli
    B. Impaired venous drainage
    C. Hgb SS disease
    D. Steroid use
    E. Alcoholism
    F. Gaucher's disease
    G. missed fracture
    H. Cushing's disease
    I. Radiation
    J. Vasculitis

Ans. The key is F. Gaucher’s disease.

30. A 35-year-old lady comes with a 5-year-old child who has nystagmus, tinnitus and deafness. The boy is found to have tumour in the cerebellopontine angle. On examination, the boy is found to have numerous café-au-lait spots seen on the back. What is the inheritance ratio of this condition?

    A. 100%
    B. 1:2
    C. 1:4
    D. 1:8
    E. None

Ans. The key is B. 1:2. [Probable diagnosis is neurofibromatosis type 2. Mode of inheritance is autosomal dominant. So the inheritance ratio is 1:2].

COMPLETTED

15. ONCOLOGY

1. A man undergoes a pneumonectomy. After surgery, investigation show hyponatremia. What could be the cause of the biochemical change?

    A. Removal of hormonally active tumor

B. Excess dextrose

C. Excess colloid

D. Excessive K+

E. Hemodilution

Ans. The key is A. Removal of harmonically active tumour.

2. A clinical picture of breast cancer originated from the mammary duct. Biopsy was done and there were neoplastic cells found. Choose the histological picture of the cancer.

   A. Neoplastic cells are arranged in small clusters occupying a space between collagen bundles (Seirrhous carcinoma)

   B. Spindle cell neoplasms with margins, which infiltrate adjacent structure, fat invaded (Breast

   sarcoma)

   C. Small cells with round nucleus and scant indistinct cytoplasm (Lobular carcinoma)

Ans. The key is C. Small cells with round nucleus and scant indistinct cytoplasm (Lobular carcinoma).

3. A 40-year-old woman notices increasing lower abdominal distention with little/no pain. On examination, a lobulated cystic mass is felt and it seems to be arising from the pelvis. What isthe most appropriate investigation?
   A. CA 125
   B. CA 153
   C. CA 199
   D. CEA
   E. AFP

Ans. The key is A. CA 125. [Ovarian ca is the likely diagnosis for which tumour marker is CA 125].

4. A 74-year-old man who has been a smoker since he was 20 has recently been diagnosed with SCLC. What serum electrolyte picture will confirm the presence of SIADH?
   A. High serum Na, low serum osmolarity, high urine osmolarity
   B. Low serum Na, low serum osmolarity, high urine osmolarity
   C. Low serum Na, high serum osmolarity, high urine osmolarity
   D. High serum Na, low serum osmolarity, low urine osmolarity
   E. High serum Na, high serum osmolarity, low urine osmolarity

Ans. The key is B. Low serum Na, low serum osmolarity, high urine osmolarity.

5. A 72-year-old man is receiving chemotherapy for SCLC (small cell lung cancer). He has his 4th treatment 8 days ago. He has a cough with some green sputum but feels well. Temperature 37.6C.

Chest examination: few coarse crepitations in the right base. HR 92bpm. CBC: Hgb 12.5g/dL, WBC 1.1, Neutrophils 0.6, Platelets 89. Sputum, urine and blood culture sent to microbiology. What is the most appropriate management?

A. Broad spectrum antibiotics IV
B. Broad spectrum antibiotics PO
C. GCSF
D. Postpone tx until bacteriology results available
E. Reassure and send home

Ans. The key is A. Broad spectrum antibiotics IV [The diagnosis is lower respiratory tract infection in association with neutropenia resulted from chemotherapy. Treated with broad spectrum antibiotics. For chemotherapy induced neutropenia GCSF (granulocyte colony stimulating factor) is given subcutaneously].

6. The diagnostic cells of Hodgkin disease are:
   A. T-cells
   B. R-S cells
   C. B-cells
   D. Macrophages
   E. Auer rods

Ans. The key is b. R-S cells. [Diagnostic cell in Hodgkins disease is Reed-Sternberg cells].

7. A 60-year-old man has a pathological rib fracture. He also complains of recurrent infection. BMA (bone marrow aspiration) is done. Labs: Ca2+ 3.9mmol/L and ALP 127 U/L. what type of cell would be found in abdundance in the marrow smear?
   A. Plasma cell
   B. Myeloid cell
   C. Bence-jones protein
   D. Megakaryocytes
   E. Reticulocytes

Ans. The key is A. Plasma cell. [The diagnosis is multiple myeloma. i) age 60 yrs ii) pathological rib fracture (from metastases) iii) recurrent infection (dueto B cell dysfunction (manifested as hypogammaglobulinemia), numerical and functional abnormalities of T cells, and dysfunction of natural killer cells), iv) raised calcium level. There are abundant plasma cells in the bone marrow].

8. A 65-year-old known case of liver ca and metastasis presents with gastric reflux and bloatedness. On bone examination there is osteoporosis. He also has basal consolidation in the left lung. What is the next appropriate step?
   A. PPI IV
   B. Alendronate
   C. IV antibiotics
   D. Analgesic
   E. PPI PO

Ans. The key is C. IV antibiotics. [Pneumonia should be treated first].

9. A patient presents with longstanding gastric reflux, dysphagia and chest pain. On barium enema, dilation of esophagus with tapering end is noted. He was found with Barrett's esophagus. He had progressive dysphagia to solids and then liquids. What is the single most appropriate diagnosis?
    A. Achalasia
    B. Esophageal spasm
    C. GERD
    D. Barrett's esophagus
    E. Esophageal carcinoma

Ans. The key is E. Oesophageal carcinoma. [there is dilatation in oesophagus which is seen both in achalasia and carcinoma. Dysphagia to solid initaially is very much suggestive of carcinoma and also barrett's change is a clue to carcinoma].

10. A 70-year-old man admits to asbestos exposure 20 years ago and has attempted to quit smoking. He has noted weight loss and hoarseness of voice. Choose the single most likely type of cancer along with risk factors present.
    A. Basal cell carcinoma
    B. Bronchial carcinoma
    C. Esophageal carcinoma
    D. Nasopharyngeal carcinoma
    E. Oral carcinoma

Ans. The key is B. Bronchial carcinoma. [Asbestos exposure is a risk factor for lung cancer and also has a synergistic effect with cigarette smoke. Horseness can be from involvement of recurrent laryngeal nerve].

11. A 50-year-old woman who was treated for breast cancer 3 years ago now presents with increase thirst and confusion. She has become drowsy now. What is the most likely metabolic abnormality?
    A. Hypercalcemia
    B. Hyperkalemia
    C. Hypoglycemia
    D. Hyperglycemia
    E. Hypocalcemia

Ans. The key is A. Hypercalcemia. [Increased thirst, confusion, drowsiness these are features of hypercalcemia. Any solid organ tumour can produce hypercalcemia. Here treated Ca breast is the probable cause of hypercalcemia].

12. A 65-year-old female patient was given tamoxifen, which of the following side effect caused by it willconcern you?
    A. Fluid retention
    B. Vaginal bleeding
    C. Loss of appetite
    D. Headache and dizziness
    E. Anorgasm

Ans. The key is B. Vaginal bleeding. [Tamoxifen can promote development of endometrial carcinoma. So vaginal bleeding will be of concern for us].

13. A 60-year-old man presented with a lump in the left supraclavicular region. His appetite is decreased and he has lost 5kg recently. What is the most probably diagnosis?
    A. Thyroid carcinoma
    B. Stomach carcinoma
    C. Bronchial carcinoma
    D. Mesothelioma
    E. Laryngeal carcinoma

Ans. The key is B. Stomach carcinoma. [Mentioned lump in the left supraclavicular region is Vershow'sgland, has long been regarded as strongly indicative of the presence of cancer in the abdomen, specifically gastric cancer].

14. A 57-year-old man with blood group A complains of symptoms of vomiting, tiredness, weight loss and palpitations. Exam: hepatomegaly, ascites, palpable left supraclavicular mass. What is the most likely diagnosis?
    A. Gastric carcinoma
    B. Colorectal carcinoma
    C. Peptic ulcer disease
    D. Atrophic gastritic
    E. Krukenburg tumor

Ans. The key is A. Gastric carcinoma. [i) blood group A is associated with gastric cancer ii) vomiting, tiredness, weight loss are general features of gastric cancer iii) palpitation from anemia of cancer iv) hepatomegaly (metastasis) and ascites are late features of gastric cancer. v) palpable left supraclavicular mass- is Vershow'sgland, has long been regarded as strongly indicative of gastric cancer].

15. A 56-year-old lady with lung cancer presents with urinary retention, postural hypotension, diminished reflexes and sluggish pupillary reaction. What is the most likely explanation for her symptoms?
    A. Paraneoplastic syndrome
    B. Progression of lung cancer
    C. Brain metastasis
    D. Hyponatremia
    E. Spinal cord compression

Ans. The key is A. Paraneoplastic syndrome. [Features given are well known features of autonomic neuropathy which can be a result of paraneoplastic syndrome].

16. A woman diagnosed with Ca Breast presents now with urinary frequency. which part of the brain is themetastasis spread to?
    A. Brain stem
    B. Pons
    C. Medulla
    D. Diencephalon

E. Cerebral cortex

Ans. The key is D. Diencephalon. [diencephalon is made up of four distinct components: i) the thalamus ii) the subthalamus iii) the hypothalamus and iv) the epithalamus. Among these the hypothalamus has crucial role in causing urinary frequency].

17. A 55-year-old man presents with history of weight loss and tenesmus. He is diagnosed with rectal carcinoma. Which risk factors help to develop rectal carcinoma except following?
    A. Smoking
    B. Family history
    C. Polyp
    D. Prv carcinoma
    E. High fat diet
    F. High fibre diet

Ans. The key is F. High fibre diet. [except high fiber diet all others are risk factors to develop rectal carcinoma].

18. A 32-year-old patient presents with cervical lymphadenopathy and splenomegaly. What is the single most appropriate option?
    A. Hemophilus
    B. Streptococcus
    C. Toxoplasmosis
    D. NHL (non hodgkin's lymphoma)
    E. Pneumocystis jerovcii

Ans. The key is D. NHL. [Here only two points are mentioned- cervical lymphadenopathy and splenomegaly! This combination makes NHL as the most likely cause though splenomegaly is a relatively uncommon feature of it. This combination does not fit in other options.]

19. A patient with hodgkins lymphoma who is under treatment develops high fever. His blood results show WBC <2800 and has a chest infection. Choose the most likely treatment?
    A. Co-amoxiclav
    B. Piperacillin+tazobactam
    C. Erythromycin
    D. Piperacillin+Co-amoxiclav
    E. Penicillin+tazobactam

Ans. The key is B. Piperacillin+tazobactam. [Here patients WBC is <2800, i.e. patient has leucopenia (probable neutropenia). Piperacillin/Tazobactam may be used in the management of neutropenic patients with fever suspected to be due to a bacterial infection as in patient with postchemotherapy neutropenia. Even febrile neutropenia can be seen in patients with cancer per-se!].

20. A 40-year-old man with a 25 year history of smoking presents with progressive hoarseness of voice, difficulty swallowing and episodes of hemoptysis. He mentioned that he used to be a regular cannabis user. What is the single most likely diagnosis?

A. Nasopharyngeal cancer

B. Pharyngeal carcinoma

C. Sinus squamous cell carcinoma

D. Squamous cell laryngeal cancer

E. Hypopharyngeal tumor

Ans. The key is D. Squamous cell laryngeal cancer.

- Chronic hoarseness is the most common early symptom.
- Other symptoms of laryngeal cancer include pain, dysphagia, a lump in the neck, sore throat, earache or a persistent cough.
- Patients may also describe breathlessness, aspiration, haemoptysis, fatigue and weakness, or weight loss.
  (Patient.co.uk)

21. A 67-year-old man with history of weight loss complains of hoarseness of voice. CT reveals opacity in the right upper mediastinum. He denied any history of difficulty breathing. What is the single mostappropriate investigation?
    A. Laryngoscopy
    B. Bronchoscopy
    C. LN biopsy
    D. Bronchoalevolar lavage
    E. Barium swallow

Ans. The key is C. Lymph node biopsy. [There is weight loss and there is an opacity in right upper mediastinum. May indicate enlarged lymph node or lymphoma causing pressure on right recurrent laryngeal nerve resulting in horseness. As CT didn't reveal any bronchial lesion and no breathing difficulty it is unlikely to be a bronchial pathology. So CT guided lymph node biopsy can reveal the diagnosis].

22. A 72-year-old man brought to the emergency department with onset of paraplegia following a trivial fall. He was treated for prostatic malignancy in the past. What is the single most probable diagnosis?
    A. Paget's disease
    B. Osteoporotic fx of vertebre
    C. Secondary
    D. Multiple myeloma
    E. Spondylosis

Ans. The key is C. Secondary. [In male osteoporotic fracture is less common. As patient had prostatic malignancy pathological fracture from secondary metastasis to bone (here vertebra leading to paraplegia) is more common].

23. A 33-year-old lady with Hodgkin's lymphoma presents with temperature 40C, left sided abdominal pain and lymphadenitis. Blood was taken for test. What will you do next?
    A. Wait for blood test
    B. Start broad spectrum IV antibiotics
    C. Oral antibiotics
    D. CBC
    E. Monitor pyrexia

Ans. The key is B. Start broad spectrum IV antibiotics. [The patient is immunocompromized with high fever (40C) suggestive of infection. Broad spectrum IV antibiotic should be started empirically while waiting for blood reports].

24. A 26-year-old woman being treated for a carcinoma of the bronchus with steroids presents with vomiting, abdominal pain and sudden falls in the morning. What is the most specific cause for her symptoms?
    A. Steroid side effects
    B. Postural hypotension
    C. Adrenal insufficiency
    D. Conn's disease
    E. Cushing's disease

Ans. The key is C. Adrenal insufficiency. [Patients on steroid develop suppression of hypothalamic pituitary adrenal axis and frequently may lead to adrenal insufficiency (here vomiting, abdominal pain and sudden falls in the morning secondary to postural hypotension on getting up from bed points towards the diagnosis of adrenal insufficiency)].

25. A 75-year-old man has left-sided earache and discomfort when he swallows. There is ulceration at the back of his tongue and he has a palpable non-tender cervical mass. What is the single most likely diagnosis?
    A. Acute mastoiditis
    B. Dental abscess
    C. Herpes zoster infection
    D. Oropharyngeal malignancy
    E. Tonsillitis

Ans. The key is D. Oropharyngeal malignancy. [Pain ear and discomfort during swallowing, ulceration at the back of the tongue and palpable non tender cervical lymphnode is suggestive of oropharyngeal malignancy. Acute mastoiditis and tonsillitis will not cause tongue ulcer. Similarly dental abscess will not cause tongue ulcer. In herpes zoster pain and vesicle will be in the affected nerve distribution].

26. A 58-year-old patient presents with altered bowel habits and bleeding per rectum. Examination and sigmoidoscopy showed an ulcer. What is the single most likely diagnosis?
    A. Colorectal carcinoma
    B. Celiac disease

C. Crohns disease
D. UC
E. IBS

Ans. The key is A. Colorectal carcinoma. [Age, altered bowel habits, bleeding per rectum and isolated ulcer on sigmoidoscopy suggest colorectal cancer].

27. A 55-year-old man has weight loss, dyspnea and syncope. He smokes 20 cigarettes/day. Investigation confirms squamous cell carcinoma in the left bronchus. What is the single most likely biochemical abnormality to be along with the condition?
    A. Hypercalcemia
    B. Hyperkalemia
    C. Hypernatremia
    D. Hypocalcemia
    E. Hypomagnesium

Ans. The key is A. Hypercalcemia. [Hypercalcemia is common in squamous cell carcinoma].

28. A 65-year-old woman had an excision of colonic tumor 3 years ago. Now she is losing weight and feels lethargic. Examination: pale but no abdominal findings. What is the most appropriate investigation?
    A. CA 125
    B. CA 153
    C. CA 199
    D. CEA
    E. AFP

Ans. The key is D. CEA. [CA 125 = ovarian cancer; CA 153 = cancer breast; CA 199 = pancreatic cancer; CEA = colorectal carcinoma; AFP = hepatocellular carcinoma].

29. A lady with family history of ovarian carcinoma has a pelvis US that fails to reveal any abnormality. What is the single most appropriate investigation?
    A. Pelvic CT
    B. CA 125
    C. CA 153
    D. Laparoscopy
    E. MRI

Ans. The key is B. CA 125. [CA 125 is tumour marker for ovarian tumour].

30. A lady underwent debulking surgery for ovarian carcinoma. Soon after the surgery she presents with signs of intestinal obstruction. What is the single most appropriate investigation?
    A. Pelvic CT
    B. CA 125

C. Laparotomy
D. Laparoscopy
E. Abdominal US

Ans. The key is C. Laparotomy. [In cancer patient obstruction does not respond to medical treatment and hence diagnostic and therapeutic laparotomy is the option of choice].

31. A 50-year-old man has had hoarseness of voice and drooping eyelid for 2 months. a mass is palpable in the right supraclavicular fossa. He smokes 20 cigarettes/day for the last 30years. What is the most likely diagnosis?
    A. Carcinoma larynx
    B. Carcinoma thyroid
    C. Carcinoma right bronchus
    D. Mesothelioma
    E. Pancoast tumor

Ans. The key is E. Pancoast tumour. [Hoarseness of voice is due to compression of the recurrent laryngeal nerve, ptosis due to compression of the sympathetic ganglion, palpable mass in right supraclavicular fossa due to involvement of the supraclavicular lymph node. History of smoking and given picture indicates the diagnosis of Pancoast tumour].

32. A man with carcinoma and multiple metastasis presents with intractable nausea and vomiting. He has become drowsy and confused. What is the most appropriate management?
    A. Dexamethasone IM
    B. Dexamethasone PO
    C. Ondansetron IM
    D. Ondansetron PO
    E. Morphine oral

Ans. The key is C. Ondensatron IM. [For cancer or chemotherapy induced vomiting ondensatron is the drug of choice. As here vomiting is intractable IM ondensatron should be given not oral].

33. A 65-year-old man with cancer of middle 1/3 of the esophagus presents with dysphagia. What is the most immediate management?
    A. Chemotherapy
    B. Radiotherapy
    C. Stenting
    D. Gastrostomy
    E. TPN (Total Parenteral Nutrition)

Ans. The key is C. Stenting.

34. A 68-year-old man has had increasing dysphagia for solid food for 3 months and has lost 5kgs in weight. What single investigation is most likely to lead to a definitive diagnosis?

A. Barium swallow
B. CXR
C. CT chest
D. Endoscopy and biopsy
E. Video-fluoroscopy

Ans. The key is D. Endoscopy and biopsy. [Likely cause is malignant stricture for which endoscopic biopsy is the definitive investigation].

35. A patient with terminal cancer is being treated with chemo develops tingling and numbness of the fingertips of both arms. What is the single most likely cause of the symptoms?
    A. Bone mets to cervical vertebrae
    B. Post-chemo neuropathy
    C. Hyponatremia
    D. Hypocalcemia

Ans. The key is B. Post-chemo neuropathy. [Neuropathy is a common side effect of chemotherapy. Chemotherapy can damage nerves that affect feeling and movement in the hands and feet. Doctors call this condition chemotherapy-induced peripheral neuropathy (CIPN). Symptoms can be severe and may affect a person's quality of life].

36. A middle aged man who has had a history of chronic sinusitis, nasal obstruction and blood stained nasal discharge. He now presents with cheek swelling, epiphora, ptosis, diplopia, maxillary pain. What is the single most likely diagnosis?
    A. Nasopharyngeal ca
    B. Pharyngeal ca
    C. Sinus squamous cell ca
    D. Squamous cell laryngeal ca
    E. Hypopharyngeal tumor

Ans. The key is C. Sinus squamous cell ca.

37. A 60-year-old man with a long history of smoking and alcohol presents with nasal obstruction, epistaxis, diplopia, otalgia and conductive deafness. What is the single most likely diagnosis?
    A. Nasopharyngeal ca
    B. Pharyngeal ca
    C. Sinus squamous cell ca
    D. Squamous cell laryngeal ca
    E. Hypopharyngeal tumor

Ans. The key is A. Nasopharyngeal ca. [Nasal obstruction, epistaxis are features of nasopharyngeal carcinoma; with cranial nerve palsy, diplopia due to 6th nerve, (also 5th and 12th cranial nerves are frequently affected) otalgia and conductive deafness from local extension as mentioned can occur].

38. A 15-year-old boy who complains of pain in his leg which has settled with aspirin. What is the most probable diagnosis?
    A. Leomyosarcoma
    B. Liposarcoma
    C. Painful hip
    D. Exostosis
    E. Osteod osteoma

Ans. The key is E. Osteoid osteoma. [Younger age of onset and relieved with aspirin favours the diagnosis of osteoid osteoma].

39. A 68-year-old diabetic, and hypertensive with a 45pack/year smoking history, has left sided chest pain increased with breathing. Examination: myosis on left side and wasting of small muscles of left hand. What is the single most appropriate diagnosis?
    A. Costochondritis
    B. Lung cancer
    C. Good pasture's syndrome
    D. MND
    E. Progressive massive fibrosis

Ans. The key is B. Lung cancer. [Smoking history, chest sign and Horner's syndrome points towards lung cancer (probable Pancoast tumour)].

40. An elderly woman is found anemic. As part of her examination, she had a barium enema which reveals a mass lesion in the ascending colon. What is the single most appropriate diagnosis?
    A. Sigmoid volvulus
    B. Anal fissure
    C. Sigmoid carcinoma
    D. Cecal carcinoma
    E. Diverticular disease

Ans. The key is D. Cecal carcinoma. [Mass in assending colon and anaemia makes cecal carcinoma the likely diagnosis from the given options].

41. A 70-year-old patient presents with cough and SOB (shortness of breath). He stopped smoking cigarettes 2 years ago but has a 50 years smoking history before quitting. CXR shows consolidation and bilateral hilar lymphadenopathy. What is the best investigation for this patient?
    A. LN biopsy
    B. Pleural fluid cytology
    C. CT
    D. MRI
    E. US

Ans. The key is A. LN biopsy. [likely diagnosis is lung cancer, so best investigation for this is LN biopsy].

42. Patient with a long history of smoking is now suffering from bronchial carcinoma. Histology reveals there are sheets of large polygonal or giant MNC (multineucleated cells). What is the most likely diagnosis?
    A. Squamous cell ca
    B. Small cell ca
    C. Adenocarcinoma
    D. Large cell ca
    E. Oat cell ca

Ans. The key is D. Large cell ca. [Large cell carcinoma is, by definition, a poorly differentiated malignant epithelial tumor. It consists of sheets or nests of large polygonal or giant multinuclear cells].

43. A man had a soft mass on his mandible. Mass is freely mobile and has started growing progressively over the past 6 months. The mass still moves freely. What is the best investigation for this patient?
    A. FNAC
    B. CT
    C. XR
    D. MRI
    E. ESR

Ans. The key is A. FNAC.

44. A 71-year-old man with a history of 50 years of smoking presents with cough, hemoptysis, dyspnea and chest pain. He also has anorexia and weight loss. The diagnosis of lung cancer has been established. Which electrolyte abnormality can be seen?
    A. Hyperkalemia
    B. Hypocalcemia
    C. Hyponatremia
    D. Hypernatremia
    E. Hypomagnesemia

Ans. The key is C. Hyponatremia. [Likely diagnosis is small cell lung cancer causing SIADH and resulting hyponatremia].

45. A 65-year-old man presents with significant weight loss and complains of cough, SOB and chest pain. Exam: left pupil constricted, drooping of left eyelid. What is the most likely diagnosis?
    A. Pancoast tumor
    B. Thoracic outlet syndrome
    C. Cervical rib
    D. Pneumonia
    E. Bronchogenic ca

Ans. The key is A. Pancoast tumor. [Pancoast tumour is the apical lung cancer that is associated with destructive lesions of the thoracic inlet and involvement of the brachial plexus and cervical sympathetic nerves (the stellate ganglion) leading to horner's syndrome].

46. A 62-year-old man has been smoking about 15 cigarettes/day for 45 years, and has been working as a builder since he was 24 years old. He presents with chest pain, SOB (shortness of breath), weight loss. CXR shows bilateral fibrosis and left side pleural effusion. What is the best investigation that will lead to diagnosis?
    A. CXR
    B. Pleural fluid aspiration of cytology
    C. MRI
    D. Pleural biopsy
    E. CT

Ans. The key is D. Pleural biopsy. [There is asbestos exposure in builders and associated smoking greatly increases the possibility of developing mesothelioma and the given presentations are typical of mesothelioma. Best investigation is pleural biopsy].

47. A 50-year-old man presents with the complaints of recurrent UTI (urinary tract infection) and occasional blood in the urine. Some unusual cells have been seen in urine on routine examination. Which of the following investigation would you like to carry out now?
    A. Cystoscopy
    B. Urine C&S
    C. XR KUB
    D. US
    E. CBC

Ans. The key is A. Cystoscopy. [Likely diagnosis is bladder cancer. Occasional blood in urine and unusual cells (suggestive of malignant cells) suggests the diagnosis. It is also true that in bladder cancer there occurs frequent UTI like symptoms].

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48. A 73-year-old man who was a smoker has quit smoking for the past 3years. He now presents withhoarseness of voice and cough since past 3 weeks. X-ray: mass is visible in the mediastinum. What isthe best investigation to confirm the diagnosis?
    A. Bronchoscopy
    B. Thoracoscopy
    C. US
    D. CT thorax
    E. LN biopsy

Ans. The key is E. LN biopsy.

49. Which of the following is true for tamoxifen?
    A. Increased incidence of endometrial carcinoma
    B. Increased risk of breast ca
    C. Increased risk of osteoporosis
    D. Increased risk of ovarian ca

Ans. The key is A. Increased incidence of endometrial carcinoma.

50. A 70-year-old man with prostatic cancer has had severe acute back pain waking him up at night for 6 weeks. What is the most appropriate investigation?
    A. MRI spine
    B. Radionuclide bone scan
    C. DEXA scan
    D. Serum ALP concentration
    E. Serum calcium concentration

Ans. The key is B. Radionuclide bone scan. [MRI is good for soft tissue but not for bone. If it was radiculopathy, spinal cord compression or prolapsed disc creating pressure on nerve MRI would be fine but not for bony metastasis. Here investigation of choice is radionuclide bone scan].

51. A 78-year-old woman is brought to the hospital complaining of back pain and is referred to the surgeon. She has been saying that her mother is due to visit her today and that somebody must have broken her lower back as she is in agony. Labs: creatinine 295mmol/l, calcium 3.03mmol/l. Which investigation is most likely to lead to a diagnosis?
    A. US KUB
    B. XR Spine
    C. IVU
    D. Bence-Jones Protein
    E. Mental state exam

Ans. The key is D. Bence-Jones protein. [Severe back pain, high calcium level and renal impairment are typical of multiple myeloma].

52. A 64-year-old man with multiple myeloma has been vomiting since the past 2days. Laboratory investigations:Ca2+=3.2mmol/l, K+=5mmol/l, Na+=149mmol/l and PCV=55%. What is the most appropriatenext step?
    A. IV insulin
    B. IV calcium gluconate
    C. IV fluids
    D. IV bisphosphonates
    E. Oral bisphosphonates

Ans. The key is C. IV fluids. [Multiple myeloma itself is a cause of vomiting and also associated hypercalcemia can cause sickness. As the patient is vomiting for 2 days there may be considerable dehydration and also the hypercalcemia needs treatment with IV fluid].

53. A 15-year-old male noticed swelling on the left knee following a fall while playing. The swelling has not subsided in spite of rest and analgesia. Examination: full knee movement with slight tenderness. He has painless palpable mass in left inguinal region. What is the most probable diagnosis?
    A. Osteosarcoma
    B. Ewing's sarcoma
    C. Chondrosarcoma
    D. Lymphangiosarcoma
    E. Osteodosteoma

Ans. The key is A. Osteosarcoma. [Both occurs in children and young adults but the occurrence of painful symptom during playing is usually a feature of osteosarcoma. In case of osteosarcoma teenagers who are active in sports often complain of pain in the lower femur, or immediately below the knee. If the tumor is large, it can present as overt localised swelling. Sometimes a sudden fracture is the first symptom, because affected bone is not as strong as normal bone and may fracture abnormally with minor trauma].

54. A woman has widespread metastasis from a carcinoma. She presented with severe back pain. Where do you expect the cancer to be?
    A. Lungs
    B. Cervix
    C. Ovary
    D. Uterus
    E. Breast

Ans. The key is E. Breast. [In female breast and lung cancer and in male prostate and lung cancer are most common to metastasize to bone].

55. A 64-year-old man who was exposed to asbestos for 40 years presents with weight loss and chest pain. The diagnosis of mesothelioma has been made. He develops SOB (shortness of breath) and X-ray shows pleural effusion. What is the most appropriate management?
    A. Thoracocenthesis
    B. Chest drain
    C. Radiation therapy
    D. Pneumonectomy
    E. Chemotherapy

The key is B. Chest drain. [Response to chemo or radiotherapy is poor in mesothelioma. For this dyspnoeic patient chest drain is most appropriate now].

56. A 75-year-old man presents with back pain. Investigation: plasma cells are found. What is the most probable diagnosis?
    A. Multiple myeloma
    B. AS
    C. Disc prolapse
    D. Leukemia
    E. Myelofibrosis

Ans. The key is A. Multiple myeloma. [H/O back pain with presence of plasma cells on investigation are highly suggestive of Multiple myeloma].

57. A terminally ill patient with metastatic carcinoma presents with dysphagia and difficulty in swallowing. What is the best possible treatment?
    A. Nystatin suspension
    B. Amphotericin B IV
    C. PO fluconazole
    D. Cotrimazole
    E. Analgesic

Ans. The key is C. PO fluconazole. [Treatment of carcinoma can predispose to development of oesophageal candidiasis which is treated as follows: Oral fluconazole (200 – 400mg) daily for 14 to 21 days (if needed IV fluconazole can also be given].

58. A patient is on cancer treatment with dexamethasone. According to her biochemical results her K+=normal and her Na+=low. What is the diagnosis?
    A. Addisons
    B. Dexamethasone side effect
    C. Dilutional hyponatremia

Ans. The key is C. Dilutional hyponatremia.

59. A male patient presented with blood and mucus in stool. He has also noticed weight loss but has no history of altered bowel habits. What is the diagnosis?
    A. Carcinoma of cecum
    B. Carcinoma of descending colon
    C. Carcinoma of sigmoid colon
    D. Carcinoma of rectum

Ans. The key is A. Carcinoma of cecum.

60. A 62-year-old previous shipyard worker complains of breathlessness and chest pain for 6 nomths. He has now developed a large pleural effusion. Which is the single best diagnostic investigation?
    A. ABG
    B. Bronchoscopy

C. CXR
D. Pleural biopsy
E. Transfer factor

Ans. The key is D. Pleural biopsy. [Shipyard worker is exposed to asbestos and the likely diagnosis here is mesothelioma for which single best investigation is pleural biopsy].

61. A 55-year-old woman with breast cancer which has spread to lung, liver and bone now presents with increasing constipation, weakness, thirst and anorexia for the past 3 days. Her only medication is haloperidol for hiccoughs. Today she is disorientated and has left sided weakness. What is the most likely diagnosis?
    A. Brain metastasis
    B. Hypercalcemia
    C. Liver failure

Ans. The key is A. Brain metastasis. [The patient has clinical hypercalcemia, but the neurological features of disorientation and left sided weakness can only be explained with brain metastasis].

62. A 26-year-old man has returned from NY to the UK and noticed weight loss, night sweats, temp=37.5C and cervical lymphadenopathy. He also has splenomegaly. What is the diagnosis?
    A. TB
    B. Lymphoma
    C. Bronchial carcinoma
    D. Bronchitis

Ans. The key is B. Lymphoma.

63. A 56-year-old lady presents with a pathological fracture of T11 vertebra. There is found to be an underlying metastatic lesion. What is her most common primary carcinoma?
    A. Lung
    B. Breast
    C. Uterine
    D. Brain

Ans. The key is B. Breast. [In female breast and lung cancer and in male prostate and lung cancer are most common to metastasize to bone].

64. A patient with celiac disease from birth, now as an adult presented with some abdominal symptoms. The biopsy shows infiltration of the gastric epithelium by lymphocytes. What is the most likely diagnosis?
    A. Lymphoma
    B. Diverticular disease
    C. Lynch syndrome
    D. Gastric TB

E. Peritoneal tumor

Ans. The key is A. Lymphoma. [Coeliac disease leads to an increased risk of both adenocarcinoma and lymphoma of gut].

65. A 65-year-old man has incurable bronchial cancer. He is unable to cough up his secretions. This is leading to a distressing cough. Which of the following drugs is most likely to help him?
    A. Scopolamine
    B. Xanomeline
    C. Aceclidine
    D. Pilocarpine
    E. Cevimiline

Ans. The key is A. Scopolamine. [Any secretory condition of lung is reduced and improved with scopolamine].

66. A 32-year-old man working in a shipyard comes with SOB (shortness of breath). Examination: dullness on left side of the chest, pain in left side of chest, pleuritic rub and crackles been heard on the same side. What is the single most likely diagnosis?
    A. Pericarditis
    B. Pleurisy
    C. Pleural effusion
    D. CCF
    E. TB

Ans. The key is C. Pleural effusion. [Shipyard worker are exposed to asbestos and presenting case has developed mesothelioma causing pleura thickening and pleural effusion. Though it is usual that in pleural effusion pleural rub reduces or becomes absent but it is also possible to get pleural rub even in pleural effusion and the likely diagnosis is pleural effusion here].

67. A 25-year-old man presented with painless cervical lymphadenopathy with lethargy, night sweats and itching. What is the single most likely causative factor?
    A. Lymphoma
    B. Polycythemia
    C. IDA
    D. Uremia
    E. Drug induced

Ans. The key is A. Lymphoma. [Cervical lymphadenopathy, lethargy, night sweats and itching are well known features of lymphoma].

68. A 25-year-old male presents with fever and pain in the right lower thigh of 1 month duration. Examination: lower third of his thigh is red, hot and tender. The X-ray showed new bone formation. What is the most probable diagnosis?

A. Osteosarcomoa
B. Ewing's sarcoma
C. Tuberculus arthritis
D. Exotosis
E. Fibrosarcoma

Ans. The key is B. Ewing's sarcoma.

69. A 76-year-old man presents with sore throat, local irritation by hot food, dysphagia and a sensation of a lump in his throat. He has a 20 year history of smoking. What is the single most likely diagnosis?
    A. Nasopharyngeal ca
    B. Pharyngeal ca
    C. Sinus squamous cell ca
    D. Squamous cell laryngeal ca
    E. Hypopharyngeal ca

Ans. The key is B. Pharyngeal Ca.

70. A middle aged man with a lump in front of his neck which moves up while he's swallowing. US (ultrasound) shows a mass replacing the left lobe of thyroid. And spread to the sternocleidomastoid and adjacent muscles. What is the most probable diagnosis?
    A. Thyroid ca
    B. Pharyngeal pouch
    C. Bronchus ca
    D. Thyroid cyst
    E. Larynx ca

Ans. The key is A. Thyroid Ca.

71. A 73-year-old woman with skeletal and brain metastasis from breast ca has worsening low back pain and blurring of vision. She has weakness of her legs, minimal knee and absent ankle tendon reflexes, a palpable bladder, a power of 2/5 at the hip, 3/5 at the knee and ankle, and tenderness over the 2nd lumbar vertebra. There is reduced sensation in the perineum. She has been started on dexamethasone 16mg daily.What is the single most likely cause of her weakness?
    A. Paraneoplastic neuropathy
    B. Progression of brain tumor
    C. PID at L2/L3
    D. Spinal cord compression
    E. Steroid induced myopathy

Ans. The key is D. Spinal cord compression. [Brain metastasis induced cerebral oedema can explain blurring of vision secondary to raised intracranial pressure. Rest of the features including weakness can well explain spinal cord compression].

72. A retired ship worker has pleural effusion and pleural thickening on right side with bilateral lung shadowing. What would you do to improve his symptoms?
    A. Aspiration
    B. Chest drain
    C. Chemotherapy
    D. Diuretic

Ans. The key is B. Chest drain. [Response to chemotherapy and life expectancy is poor in mesothelioma. To improve symptoms chest drain should be undertaken].

73. A 70-year-old patient comes with swelling in the parotid region for the last 10 years. Examination: gland is soft and cystic. Choose the most probable diagnosis?
    A. Pleomorphic adenoma
    B. Carcinoma of the salivary glands
    C. Mikulicz's disease
    D. Adenoid cystic carcinoma
    E. Parotid duct stones

Ans. The key is D. Adenoid cystic carcinoma. [Pleomorphic adenoma is firm in consistency not soft and cystic. Also adenoid cystic carcinoma progresses slowly and 15 year survival is 40%].

74. A 52-year-old woman has had a swelling in the neck, hoarseness and stridor-both inspiratory and expiratory for 2month. What is the most probable diagnosis?
    A. Ca larynx
    B. Ca thyroid
    C. Vocal chord nodules
    D. Ca bronchus
    E. Thyrotoxicosis

Ans. The key is B. Ca thyroid. [There is no features of hyperthyroidism. So it is not thyrotoxicosis but Ca thyroid].

75. A 75-year-old Japanese woman reports repeated episodes of vomiting of undigested food mixed with blood. She has lost 5 kgs in weight over the last one month. Clinical examination: shows a frail woman with mild conjunctival palor, non-tender slightly mobile mass in the epigastric region. Which is the most likely diagnosis?
    A. Colon cancer
    B. Gastric cancer
    C. Gall bladder cancer
    D. Oesophageal cancer

Ans. The key is B. Gastric cancer. [Non-tender mass in epigastrium, conjunctival pallor (anemia), weight loss, vomiting of undigested food mixed with blood due to pyloric obstruction by cancer mass and

particularly Japanese (highest incidence of gastric cancer due to taking smoked fish) are suggestive of gastric cancer].

76. A 45-year-old man presents with a mass on the right side of the face. The mass was first observed three months ago but has recently become visibly larger. He feels pain over the mass and is unable to blow a whistle. Clinical examination shows that the mass is likely to be the parotid gland. An oral examination shows a foul smelling discharge from the duct of the gland and gentle probing shows that it is stenosed at the meatus. Which of the following features suggests that the mass might be malignant?
    A. Presence of pain
    B. Recent enlargement
    C. Facial nerve palsy
    D. Stenosed duct meatus

Ans. The key is C. Facial nerve palsy. [Due to malignant infiltration].

77. A 60-year-old man who presented with metastatic adenocarcinoma of unknown source. He developed rapidly progressive weakness of his arms and was found to have a deposit of tumour in his cervical spine. This was emergently treated with radiation. He developed considerable nausea and vomiting during his therapy and at the end of the course began to have bloody vomiting. Following rescusitation with 6 units of blood, what is the next test of choice?
    A. Apt test
    B. Neck, chest, abdominal XR
    C. 24h esophageal pH probe test
    D. CT abdomen
    E. US abdomen
    F. MRI abdomen
    G. Barium swallow
    H. Angiography
    I. Nuclear scan
    J. Endoscopy

Ans. The key is J. Endoscopy. [Whenever there hemetemesis endoscopy should be carried out immediately if the patients condition allows or it should be delayed till resucitation ,Underlying cause for hemetemesis needs to be sorted out.(High dose radiation is a cause Ulceration and any active bleeders must be treated)].

78. A 55-year-old man has weight loss, dyspnea and syncope. He smokes 20 cigarettes a day. Investigation confirms squamous cell carcinoma in the left bronchus. What is the single most important likely biochemical abnormality to be associated with the condition?
    A. Hyperkalaemia
    B. Hypercalcaemia
    C. Hypernatremia
    D. Hypocalcemia

E. Hypomagnesemia

Ans. B. Hypercalcaemia. [The main pathogenesis of hypercalcemia in malignancy is increased osteoclastic bone resorption. Enhanced bone resorption in malignancy is mainly secondary to different humoral factors released by tumour cells locally or systemically. The main humoral factor is parathyroid hormone related protein produced by many solid tumours. It increases calcium by activating parathyroid hormone receptors in tissue, which result in osteoclastic bone resorption. It also increases renal tubular resorption of calcium].

79. A smoker with several ulcers in the mouth and lower surface of the tongue and also with white striae on the mouth.

    A. Aphthous ulcer
    B. Lichen planus
    C. Kaposis sarcoma
    D. Cancer of the mouth

Ans. The key is D. Cancer of the mouth. [Smoking is a risk factor for cancer of mouth and oral ulcers are common presenting feature of mouth cancer].

80. A 68-year-old woman has otalgia and dysphagia. She has angular cheilitis and pale conjunctiva. Her oropharyngeal examination is normal. In which single anatomical site is this patient likely to have a tumour?

    A. Lower oesophagus
    B. Nasoparyngeal
    C. Post cricoids
    D. Thyroids
    E. Tonsil

Ans. The key is C. Post cricoid. [Most patients with post cricoid tumour report a globus and dysphagia more to solid than liquids and gradually develops in odynophagia. Progression of tumour causes otalgia which is an ominous sign. Conjunctival pallor is due to tumour related anemia].

81. A 70-year-old man with lung cancer presents with a cough. He is already on codeine, steroid and salbutamol inhalers. What is the single most appropriate management?
    A. Nebulized adrenaline

    B. 0.9% saline nebulized
    C. Oral morphine
    D. Antibiotics
    E. Benzodiazepines

Ans. The key is B. 0.9% saline nebulized. [Nebulized NS loosens the phlem and help to expectorate it easily].

16. ALLERGY AND IMMUNITY

1. A 28-year-old man has developed a red, raised rash on trunk after playing football. His past medical history shows he had childhood asthma. The rash is becoming increasingly itchy. What is the most appropriate treatment?
   A. Oral chlorpheneraime
   B. Oral amoxicillin
   C. IM adrenaline
   D. Nebulized salbutamol
   E. Histamine

Ans. The key is A. Oral chlorpheneramine. [Diagnosis is Atopy (allergy)].

2. An otherwise healthy 13-year-old boy presents with recurrent episodes of facial and tongue swelling and abdominal pain. His father has had similar episodes. What is the most likely diagnosis?
   A. C1 esterase deficiency
   B. HIV
   C. Mumps
   D. Sarcoidosis
   E. Sjogren's syndrome

Ans. The key is A. C1 esterase inhibitor deficiency. [Diagnosis is hereditary angioedema. Acquired angioedema usually manifest after the age of 40 yrs].

3. A 20-year-old man complains of recent onset of itching which followed a viral infection. There are numerous wheals of all sizes on his skin particularly after he has scratched it. These can last up to an hour. What is the most probable diagnosis?
   A. Uremia
   B. Urticaria
   C. Psychogenic itching
   D. Atopic eczema
   E. Primary biliary cirrhosis

Ans. The key is B. Urticaria.

4. A 19-year-old boy complains of itching on the site of insect bite. What is the single most appropriate management?
   A. Penicillin oral
   B. Doxycycline oral
   C. Oral antihistamine
   D. Oral ciprofloxacin
   E. Reassurance

Ans. The key is C. Oral antihistamine.

5. After eating a cookie at a garden party, a child began to cough and went blue. The mother also noticed that there were swollen patches on the skin. What is the diagnosis?
   A. Allergic reaction
   B. Aspiration of food
   C. Cyanotic heart disease
   D. Trachea-esophageal fistula
   E. Achalasia cardia

Ans. The key is A. Allergic reaction.

6. After eating a cookie at a garden party, a child began to cough and went blue. The mother also noticed that there were swollen patches on the skin. What is the initial management?
   A. OTC antihistamine
   B. Oxygen
   C. Bronchodilators
   D. Epinephrine IM
   E. Nebulized epinephrine

Ans. The key is D. Epinephrine IM [anaphylaxis with partially blocked airway].

7. A 24-year-old patient presented with anaphylactic shock. What would be the dose of adrenaline?
   A. 0.5ml of 1:1000
   B. 0.5ml of 1:10000
   C. 1ml of 1:500
   D. 5ml of 1:1000
   E. 0.05ml of 1:100

Ans.The key is A. 0.5 ml of 1:1000. [In anaphylaxis adrenaline 0.5ml of 1:1000 is given IM whereas in cardiac arrest 1 ml of 1:1000

8. A patient presented after eating a seafood dish at a local restaurant. He complains of difficulty in breathing. His speech is slurred and his BP is 85/55mmHg. What would be the most appropriate next step?
   A. IV adrenaline
   B. IM adrenaline
   C. SC adrenaline
   D. PO chlorpheniramine
   E. IV chlorpheniramin

Ans. The key is B. IM adrenaline. [Patient is getting anaphylactic shock with difficulty of breathing and slurred speech (probably from tongue swelling) which is indication of IM adrenaline].

9. A 37-year-old female working as a healthcare assistant in a nursing home comes to the ED with complaints of severe itching all over her body. On asking she replies that she had applied cream on the body of a resident in the nursing home who had similar itches. What is the mechanism of itching?

A. Allergic reaction
B. Inflammation of keratinocytes
C. Allergic reaction developed due to use of topical steroid creams
D. Subcutaneous bleeding
E. None

Ans. The key is A. allergic reaction.

COMPLETED

17. FLUID AND ELECTROLYTE IMBALANCE

1. A 12-year-old patient presents with copious diarrhea. Examination: urine output low, mucous membrane dry, skin turgor low. What is the most appropriate initial management?
   A. Antibiotic
   B. Antimotility
   C. Anti-emetic
   D. Fluid replacement
   E. Reassurance

Ans. The key is D. Fluid replacement. [Diagnosis is severe dehydration. Points in favour: i) low urine output ii) dry mucous membrane and iii) low skin turgor].

2. A 2-months-old child with diarrhea and vomiting for 6 days is brought in looking lethargic. What is the appropriate initial investigation?
   A. BUE
   B. Random blood sugar
   C. CBC
   D. CXR
   E. AXR

Ans. The key is B. random blood sugar. [Though there occurs electrolyte imbalance but it is common practice to do random blood sugar at patients arrival as initial investigation].

3. A 28-year-old drug user presents to the emergency department with collapse and anuria. His serum K+ 7.5mmol/L. CXR early pulmonary edema. What is the next appropriate management?
   A. Urgent hemodialysis
   B. IV calcium gluconate
   C. IV insulin + dextrose
   D. Furosemide
   E. IV NS 0.9%

Ans. The key is B. IV calcium gluconate. [IV calcium gluconate is given to protect the heart from lethal arrhythmia or cardiac arrest from high potassium level and used to buy time while definitive

management is being taken. Actually calcium gluconate don't lower the potassium level that much but protect the heart from arrhythmia].

4. A 6 week child is very sick-looking. Bloods: Na+ 124, K+ 2.8. Dehydrated. What would you choose to resuscitate?
   A. 0.18% NS + 4% dextrose + 20mmol KCl
   B. 0.9% NS
   C. 0.45% NS
   D. 0.45% NS + 5% dextrose
   E. 0.45% NS + 5% dextrose + 20 mmol KCl

Ans. The key is B. 0.9% NS. [Rsuscitation is mostly done with 0.9% NS or ringers lactate, or hartmans solution. Here is hypokalemia. To treat hypokalaemia the cut off value is below 2.5 mmol/L and absence of anuria during resuscitation. Maintenance is with fluid E].

5. A 72-year-old woman who is taking loop diuretics is suffering from palpitations and muscle weakness. What is the electrolyte imbalance found?
   A. Na+ 130mmol/l, K+ 2.5mmol/l
   B. Na+ 130mmol/l, K+ 5.5mmol/l
   C. Na+ 140mmol/l, K+ 4.5mmol/l
   D. Na+ 150mmol/l, K+ 3.5mmol/l
   E. None

Ans. The key is A. Na+ 130mmol/l, K+ 2.5mmol/l. [Loop diuretic causes hypokalemia and hyponatremia].

6. A middle aged male is feeling unwell after a recent MI. The recent ECG shows prolonged QRS complex and tented T wave. Na+ 136mmol/l, K+ 6.2mmol/l, urea 5mmol/l. What is the most appropriate management?
   A. Calcium gluconate
   B. Calcium resonium
   C. Calcium with vit D supplement
   D. Vit D
   E. Calcium

Ans. A. Calcium gluconate. [ECG change of prolonged QRS complex and tented T wave are suggestive of hyperkalaemia which is further supported by K+ level of 6.2 mmol/l. So to protect the heart from arrhythmia calcium gluconate should be given].

7. A 40-year-old man complains of thirst and lethargy. His BP is 140/90mmHg, corrected Ca2+ 3.7mmol/l. What is the most appropriate management at this stage?
   A. IV fluids
   B. Prednisolone
   C. IV hydrocortisone
   D. Calcium prep

Ans. The key is A. IV fluids. [Hypercalcemia is treated by IV fluids].

8. A 28-year-old drug user presents to emergency department collapsed and anuria. His serum K+ is 7.5mmol/l. CXR shows early pulmonary edema. What is the next appropriate management for this patient?
   A. Urgent hemodialysis
   B. IV calcium gluconate
   C. IV insulin + dextrose
   D. Furosemide
   E. IV 0.9% NS

Ans. The key is B. IV calcium gluconate. [In severe hyperkalemia IV calcium gluconate is given to protect the heart from cardiac arrest or life-threatening arrhythmias till definitive treatments are arranged].

9. You are the HO (house officer) in the hospital and the lab report of a patient shows glucose 4mmol/l, K+ 5.2mmol/l, Na+ 129mmol/l. what is the most appropriate management?
   A. NS 0.9%
   B. NS 0.45%
   C. NS 0.9% and insulin
   D. Insulin
   E. Dextrose

Ans. The key is A. NS 0.9% [Here there is significant hyponatremia with mild hyperkalemia. Glucose is in lower normal level. Insulin can shift K+ in cells but this mild hyperkalemia does not need this treatment at this level. More over in lower blood glucose insulin may cause hypoglycemia. So the best management option is A. NS 0.9% which will correct the electrolyte imbalance (including K+ level by renal handling)].

10. An 89-year-old patient has lung cancer. His Na+ 122mmol/l. What is the treatment for this?
    A. Demeclocycline
    B. Vasopressin
    C. Restrict fluids
    D. Reassure

Ans. The key is C. Restrict fluid. [This is a case of SIADH secondary to lung cancer and in case of SIADH even in sever hyponatremia 1st line treatment is fluid restriction. So for this question answer is C. Fluid restriction].

11. An 80-year-old man with prostatic cancer has confusion, thirst, abdominal pain and an abnormal ECG. What is the most appropriate investigation?
    A. MRI spine
    B. Radionuclide bone scan
    C. DEXA scan
    D. Serum ALP concentration
    E. Serum calcium concentration

Ans. The key is E. Serum calcium concentration. [Confusion, thirst, abdominal pain and ECG changes (marked shortening of QT interval) are features of hypercalcemia. So E. Serum calcium concentration is the likely option].

12. A 62-year-old man has multiple liver metastasis due to adenocarcinoma with an unknown primary. He is deeply jaundiced and has ascites with edema upto the buttocks. He is now drowsy and his family are worried that he is not drinking enough. His medications include: haloperidol 1.5mg, lactulose 10ml. Bloods taken 3days ago: electrolytes normal, urea 6.5mmol/l, creatinine 89mmol/l, calcium=2.04mmol/l, albumin=17g/L, total bilirubin=189mmol/l. What is the single most appropriate management of his fluid intake?

    A. Albumin infusion
    B. Crystalloids IV
    C. Crystalloids SC
    D. Fluids via NGT
    E. Fluids PO

Ans. The key is A. Albumin infusion. [Here serum albumin is 17. So the patient developed ascites and oedema secondary to reduced plasma colloidal osmotic pressure. Albumin infusion can help rise the colloidal osmotic pressure and improve the patients condition].

13. A 61-year-old man was found with K+ 7.5 and ECG with prolong QRS complex. What is the best possible treatment option?
    A. Dialysis
    B. IV calcium gluconate
    C. IV insulin and dextrose
    D. Salbutamol nebulizer
    E. Loop diuretics

Ans. The key is a. Dialysis. [In this high level of potassium best (or definitive) option is Dialysis and most appropriate or NEXT option is b. IV calcium gluconate].

14. A 36-year-old man has been diagnosed with diabetes insipidus. What electrolyte picture is expected to be seen?
    A. High serum Na, low serum osmolarity, high urine osmolarity
    B. Low serum Na, low serum osmolarity, high urine osmolarity
    C. Low serum Na, high serum osmolarity, high urine osmolarity
    D. High serum Na, high serum osmolarity, low urine osmolarity
    E. Normal Na, normal serum osmolarity, normal urine osmolarity

Ans. The key is D. High serum Na, high serum osmolarity, low urine osmolarity.

15. A patient is diagnosed with SIADH. Choose the appropriate biochemical change.
    A. Plasma Na+ decrease and urine osmolarity increase
    B. Plasma Na+ decrease and urine osmolarity decrease
    C. Plasma Na+ increase and urine osmolarity decrease
    D. Plasma Na+ increase and urine osmolarity increase

Ans. The key is A. Plasma Na+ decrease and urine osmolarity increase.

COMPLETED

18. OBSTETRICS AND GYNAECOLOGY

1. A pregnant lady came with pain in her calf muscle with local rise in temp to the antenatal clinic. What treatment should be started?
    A. Aspirin
    B. LMWH
    C. Paracetamol
    D. Cocodamol
    E. Aspirin and heparin

Ans. The key is B. LMWH. [Injections with low molecular weight heparin (LMWH) are usually used to treat pregnant women with DVT. LMWH prevents the blood clot getting bigger. It does not affect the developing baby].

2. A 32-year-old woman of 39 weeks gestation attends the antenatal day unit feeling very unwell with sudden onset of epigastric pain associated with nausea and vomiting. Her temperature is 36.7C. Examination: she is found to have RUQ tenderness. Her blood results show mild anemia, low platelets, elevated liver enzymes and hemolysis. What is the most likely diagnosis?
    A. Acute fatty liver of pregnancy
    B. Acute pyelonephritis
    C. Cholecystitis
    D. HELLP syndrome
    E. Acute hepatitis

Ans. The key is D. HELLP syndrome. [HELLP syndrome is a life-threatening liver disorder thought to be a type of severe preeclampsia. It is characterized by Hemolysis (destruction of red blood cells), Elevated Liver enzymes (which indicate liver damage), and Low Platelet count.The main treatment is to deliver the baby as soon as possible (as early as after 34 weeks if multisystem disease is present)].

3. A female with type 1 DM would like to know about a deficiency of vitamins in pregnancy that can be harmful. A deficiency of which vitamin can lead to teratogenic effects in the child?
    A. Folic acid
    B. Vit B12
    C. Thiamine
    D. Riboflavine.
    E. Pyridoxine

Ans. The key is A. Folic acid. [Frequently associated with neural tube defect].

4. A 23-year-old lady was prescribed with azithromycin 1gm for her chlamydial pelvic infection. She has got a new boyfriend for the last 2 months. She has recently started contraception to avoid conception. Which of the following contraception method will be affected by azithromycin?
    A. Barrier
    B. IUCD
    C. POP
    D. COCP

Ans. None of them! Before it was thought that hepatic enzyme inhibitor drugs may affect COCP but later it was established that actually there is no such significant effect. Only drugs likerefumpicin, rifabutin etc. can cause this. [For exam purpose if you have to choose one please choose D. COCP].

5. A 27-year-old lady has had an uncomplicated pregnancy so far. She came to the hospital 2 hours ago after her water broke. The midwife is looking at her now. She has regular contractions. P.V exam revealed 2cm dilated cervix. Vital signs are normal. What stage of labour is she in?
    A. Second stage
    B. First stage
    C. Latent stage
    D. Third stage
    E. Active phase

Ans. The key is B. First stage. [First stage starts with softening of cervix with start of opening of cervix and ends when cevix is fully dilated (i.e. 10 cm dilated)].

6. A 29-year-old woman had just delivered a still born vaginally, following a major placental abruption. Choose the single most likely predisposing factor for developing PPH in this lady?
    A. Retained product
    B. DIC
    C. Fibroid uterus
    D. Uterine infection
    E. Large placental site

Ans. The key is B. DIC. [Pregnancy itself is a risk factor for DIC. Placental abruption increases the risk of DIC further. Other causes of pregnancy related DIC are: eclampsia, retention of a dead fetus, amniotic fluid embolism, retained placenta or bacterial sepsis].

7. A 28-year-old woman has delivered with rotational forceps after an 8hours labor and 3hours second stage. Choose the single most likely predisposing factor for PPH for this patient?
    A. Atonic uterus
    B. Cervical/vaginal trauma
    C. Retained product
    D. Preterm labor
    E. Uterine infection

Ans. The key is B. Cervical/vaginal trauma. [complication of forceps delivery].

8. A 3-year-old woman has delivered after an induced labor which lasted 26 hours. choose the single most likely predisposing factor for postpartum hemorrhage?
    A. Atonic uterus
    B. Cervical/vaginal trauma
    C. Rupture uterus
    D. Fibroid uterus
    E. Age of mother

Ans. The key is A. Atonic uterus. [Prolonged labour is a risk factor for PPH secondary to atonic uterus].

9. A 25-year-old woman presented to her GP on a routine checkup. Upon vaginal examination, she was fine except for finding of cervical ectropion which was painless but mild contact bleeding on touch. What is the next management?
    A. Endometrial ablation
    B. Cervical smear (2nd line)
    C. Colposcopy
    D. Antibiotics (1st line)
    E. Vaginal US
    F. Pack with gauze and leave to dry

Ans. The key is B. Cervical smear. [In UK 25 year is the age when 1st smear is offered. Cervical smear is a screaning service which follows its own schedule and cannot be done unless it is due or overdue. As the Lady is of 25 years and has ectropion and contact bleeding smear is the best option here as in UK 1st smear is offered at 25 yrs].

10. A 32-year-old had a normal vaginal delivery 10 days ago. Her uterus has involuted normally. Choose the single most likely predisposing factor for PPH?
    A. Retained product
    B. DIC
    C. Uterine infection
    D. Von Willebrand disease
    E. Primary PPH

Ans. The key is C. Uterine infection. [Normal involution excludes retained product].

11. A 41-year-old woman who has completed her family, has suffered from extremely heavy periods for many years. No medical treatment has worked. She admits that she would rather avoid open surgery. After discussion, you collectively decide on a procedure that wouldn't require open surgery or GA. Select the most appropriate management for this case.
    A. Endometrial ablation
    B. Hysterectomy
    C. Fibroid resection
    D. Myomectomy
    E. Uterine artery embolization

Ans. The key is E. Uterine artery embolization. [Done by interventional radiologist expert in arterial embolization technique. Particles are placed in uterine artery to block circulation to uterine body. No operation or GA is required].

12. A 25-year-old had an LSCS (lower segment cesarean section) 24h ago for fetal distress. She now complains of intermittent vaginal bleeding. Observations: O2 saturation 98% in air, BP 124/82mmHg, pulse 84bpm, temperature 37.8C. Themidwife tells you that she had a retained placenta, which required manual removal in the OT.
    Choose the most appropriate C-Section complication in this case?
    A. Retained POC
    B. Aspiration pneumonitis
    C. Endometritis
    D. Uterine rupture

E. DIC

Ans. The key is C. Endometritis.[Excessive handling of retained placenta lead to endometritis which is the cause of intermittent vaginal bleeding and raised temperature].

13. A 25-year-old woman with type 1 diabetes mellitus has delivered a baby weighing 4.5kg. Her uterus is well contracted. Choose the single most likely predisposing factor for PPH from the options.
    A. Atonic uterus
    B. Cervical/vaginal trauma
    C. Retained POC
    D. Large placental site
    E. Rupture uterus

Ans. The key is B. Cervical/vaginal trauma. [The baby is a big baby. If patient's uterus was not well contracted we would fear of atonic uterus! But as uterus is well contracted it is not atonic uterus. Rather most likely cause is trauma during delivery of this big baby].

14. A 28-year-old woman at 39 weeks gestation is in labor. She develops abdominal pain and HR 125 bpm, BP 100/42mmHg, temp37.2C and saturation99%. Examination: lower abdomen is exquisitely tender. CTG previously normal, now showing reduced variability and late deceleration with slow recovery. She has had 1 previous LSCS (lower segment cesarean section) for a breech baby. Choose the most appropriate CS (cesarean section) complication for this lady?
    A. Endometritis
    B. UTI
    C. Urinary tract injury
    D. Pleurisy
    E. Uterine rupture

Ans. The key is E. Uterine rupture. [Features of shock, exquisitely tender lower abdomen with abdominal pain, previously normal CTG now becoming non-reassuring and previous history of LSCS makes the diagnosis of uterine rupture].

15. A 45-year-old waitress complains of pelvic pain which worsens pre-menstrually and on standing and walking. She also complains of post-coital ache. Select the most likely cause leading to her symptoms?
    A. PID
    B. Endometritiosis
    C. Pelvic congestion syndrome
    D. Adenomyosis
    E. Premature ovarian failure

Ans. The key is C. Pelvic congestion syndrome. [Women with pelvic congestion syndrome experience a constant pain that may be dull and aching, but is occasionally more acute. The pain is worse at the end of the day and after long periods of standing, and sufferers get relief when they lie down. The pain is worse during or after sexual intercourse, and can be worse just before the onset of the menstrual period. Cause is attributed to female hormone estrogen induced vascular (venous) changes. So it is usually seen in females].

16. A35-year-old lady who has been using IUCD for one year now complains of pelvic pain and heavy painful periods. Select the most likely cause leading to her symptoms?

A. PID (pelvic inflammatory disease)
B. Endometriosis
C. Adenomyosis
D. Fibroids
E. Asherman syndrome

Ans. The key is A. PID. [The given picture may have D/D of PID or fibroid. As IUCD is a risk factor for PID, it is the most likely diagnosis of given picture. Menorrhagia for fibroids is usually painless].

17. A 64-year-old woman has been on HRT for 9 years. She had regular withdrawal bleeds until 3 years ago and since then has been taking a no bleed preperation. Recently she noticed a brown vaginal discharge. Choose the single most appropriate initial investigation?

A. Cervical smear
B. High vaginal swab
C. TFT
D. Transvaginal US

Ans.The key is D. Transvaginal US. [Transvaginal US to determine endometrial thickness.

In a postmenopausal woman with vaginal bleeding, the risk of cancer is approximately 7.3% if her endometrium is thick (> 5 mm) and < 0.07% if her endometrium is thin (≤ 5 mm).

In postmenopausal women without vaginal bleeding, the risk of cancer is approximately 6.7% if the endometrium is thick (> 11 mm) and 0.002% if the endometrium is thin (≤ 11 mm)].

18. A 20-year-old young lady comes to the GP for advice regarding cervical carcinoma. she is worried as her mother past away because of this. She would like to know what is the best method of contraception in her case?
    A. POP
    B. Barrier method
    C. IUCD
    D. COCP
    E. IUS

Ans. The key is B. Barrier method. [Spermatozoa itself acts as a carcinogen. So barrier method is the best protection from the given options].

19. A 44-year-old woman complains of heavy bleeding per vagina. Transvaginal US (ultra sonography) was done and normal. Which of the following would be the most appropriate investigation for her?
    A. Hysterectomy
    B. Endometrial biopsy
    C. CBC

D. High vaginal swab
E. Coagulation profile

Ans. The key is E. Coagulation profile. [Transvaginal US is normal i.e. no endometrial hyperplasia, no fibroid or obvious cause for heavy bleeding was found. So now most appropriate investigation should be coagfulation profile].

20. A 24-year-old woman presents with deep dyspareunia and severe pain in every cycle. What is the initial investigation?
    A. Laparoscopy
    B. Pelvic US
    C. Hysteroscopy
    D. Vaginal Swab

Ans. The key is B. Pelvic US. [The likely diagnosis is endometriosis. Endometriosis is a condition where tissue similar to the lining of the womb starts to grow in other places, such as the ovaries and fallopian tubes. There may be pelvic pain that is worse during period. Period pain that stops the patient from normal activity. There may be dyspareunia, menorrhagia and difficulty getting pregnant].

21. A38-year-old woman, 10 day postpartum presents to the GP with history of passing blood clots per vagina since yesterday. Examinatio: BP 90/40mmhg, pulse 110bpm, temperature 38C, uterus tender on palpation and fundus 2cm above umbilicus, blood clots +++. Choose the single most likely diagnosis.
    A. Abruption of placenta 2nd to pre-eclampsia
    B. Concealed hemorrhage
    C. Primary PPH
    D. Secondary PPH
    E. Retained placenta
    F. Scabies

Ans. The key is D. Secondary PPH. [Secondary PPH is defined as abnormal or excessive bleeding from the birth canal between 24 hours and 12 weeks postnatally. [www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg52/].

22. A 32-year-old female with 3 prvious 1st trimester miscarriages is diagnosed with antiphospholipid syndrome. Anticardiolipin antibodies +ve. She is now 18 weeks pregnant. What would be the most appropriate management?
    A. Aspirin
    B. Aspirin & warfarin
    C. Aspirin & heparin
    D. Heparin only
    E. Warfarin only

Ans. The key is C. Aspirin & heparin.

23. A 23-year-old presents with vomiting, nausea and dizziness. She says her menstrual period has been delayed 4 weeks as she was stressed recently. There are no symptoms present. What is the next appropriate management?
    A. Refer to OP psychiatry
    B. Refer to OP ENT
    C. CT brain
    D. Dipstick for B-hCG
    E. MRI brain

Ans. The key is D. Dipstick for B-hCG. [Likely diagnosis is pregnancy. Features like vomiting, nausea and dizziness are consistent with early pregnancy supported by delayed menstruation].

24. A 16-year-old girl came to the sexual clinic. She complains of painful and heavy bleeding. She says she doesn't have a regular cycle. What is the most appropriate management?
    A. Mini pill
    B. Combined pill
    C. IUS
    D. Anti-prostoglandins
    E. Anti-fibrinolytics

Ans. The key is B. Combined pill.

25. Which method of contraception can cause the risk of ectopic pregnancy?
    A. COCP
    B. IUCD
    C. Mirena
    D. POP

Ans. The key is B. IUCD.

26. A 31-year-old woman who is 32 weeks pregnant attends the antenatal clinic. Lab investigations: Hgb 10.7, MCV 91. What is the most appropriate management for this patient?
    A. Folate supplement
    B. Ferrous sulphate 200mg/d PO
    C. Iron dextran
    D. No treatment required

Ans. The key is D. No treatment required. [According to NICE, cut offs for iron supplements:

at booking (8-10 weeks)- if less than 11

at 28 weeks and further- if less than 10.5

if less than these values=> give iron].

27. A 32-year-old woman of 39 weeks gestation attends the antenatal day unit feeling very unwell with sudden onset of epigastric pain along with nausea and vomiting. Temperature 36.7C.

Examination: right upper quadrant tenderness. Bloods: mild anemia, low platelets, elevated LFT (liver function test) and hemolysis. What is the most likely diagnosis?
A. Acute fatty liver of pregnancy
B. Acute pyelonephritis
C. Cholecystitis
D. HELLP syndrome
E. Acute hepatitis

Ans. The key is D. HELLP syndrome. [H=hemolysis, EL=elevated liver enzyme, LP=low platelet count].

28. A 57-year-old woman presents with dysuria, frequency and urinary incontinence. She complains of dyspareunia. Urine culture has been done and is sterile. What is the most appropriate step?
A. Oral antibiotics
B. Topical antibiotics
C. Topical estrogen
d. Oral estrogen
E. Oral antibiotics and topical estrogen

Ans. The key is C. Topical estrogen. [There may be UTI like symptoms and dyspareunia in atrophic vaginitis for which topical oestrogen can be used].

29. A patient came to the emergency department with severe lower abdominal pain. Vitals: BP 125/85 mmHg, Temp 38.9C. Examination: abdomen rigid, very uncomfortable during per vaginal. She gave a past history of PID (pelvic inflammatory disease) 3 years ago which was successfully treated with antibiotics. What is the appropriate investigation?
A. US
B. Abdomen XR
C. CT
D. High vaginal
E. Endocervical swab

Ans. The key is A. US. [Patient had previous PID. Current symptoms of severe cervical motion tenderness with significant rise of temperature is very much suggestive of pelvic abscess].

30. A 24-year-old 18 week pregnant lady presents with pain in her lower abdomen for the last 24 hours. She had painless vaginal bleeding. Exam: abdomen is tender, os is closed. What is the most probable diagnosis?
A. Threatened miscarriage
B. Inevitable miscarriage
C. Incomplete miscarriage
D. Missed miscarriage
E. Spontaneous miscarriage

Ans. The key is A. Threatened miscarriage. [gestational age 18 weeks, lower abdominal pain, tender abdomen, closed os and painless vaginal bleeding indicates threatened abortion].

31. A 32-year-old female who has had 3 previous miscarriages in the 1st trimester now comes with vaginal bleeding at 8weeks. US (ultrasound) reveals a viable fetus. What would be the most appropriate definitive management?
    A. Admit
    B. Aspirin
    C. Bed rest 2 weeks
    D. Cervical cerclage
    E. No treatment

Ans. The key is B. Aspirin. [Early miscarriage is more common in antiphospholipid syndrome and treated with heparin or aspirin when become pregnant].

32. A 27-year-old 34 week pregnant lady presents with headache, epigastric pain and vomiting. Examination:Pulse 115, BP 145/95mmHg, proteinuria ++. She complains of visual disturbance. What is thebest medication for the treatment of the BP?
    A. 4g MgSO4 in 100ml 0.9%NS in 5mins
    B. 2g MgSO4 IV bolus
    C. 5mg hydralazine IV
    D. Methyldopa 500mg/8h PO
    E. No treatment

Ans. The key is E. No treatment. [Here, question specifically asked for treatment of BP. In case of BP of 145/95 mmHg no treatment for BP is needed. Ref: NICE guideline].

33. A 24-year-old lady who is 37 weeks pregnant was brought to the emergency department. Her husband says a few hours ago she complained of headache, visual disturbance and abdominal pain. On arrival at the emergency department she has a fit. What is the next appropriate management for this patient?
    A. 4g MgSO4 in 100ml 0.9%NS in 5mins
    B. 2g MgSO4 IV bolus
    C. 2g MgSO4 in 500ml NS in 1h
    D. 4g MgSO4 IV bolus
    E. 10mg diazepam in 500ml 0.9%NS in 1h

Ans. The key is A. 4g MgSO4 in 100ml 0.9%NS in 5mins [NICE guideline]. [Diagnosis is eclampsia].

34. A 24-year-old girl comes to the woman sexual clinic and seeks advice for contraception. She is on sodium valproate.
    A. She can’t use COCP
    B. She can use COCP with extra precaution
    C. She can use COCP if anticonvulsant is changed to carbamezapin.
    D. She can use COCP with estrogen 50ug and progesterone higher dose
    E. She can use COCP

Ans. The key is E. She can use COCP. [sodium valproate has no effect on COCP].

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35. A 27-year-old lady came to the emergency department 10 days ago with fever, suprapubic tenderness and vaginal discharge. PID was diagnosed. She has been on the antibiotics for the last 10days. She presents again with lower abdominal pain. Temperature 39.5C. what is the most appropriate next management?
    A. Vaginal swab
    B. Endocervical swab
    C. US
    D. Abdominal XR
    E. Laparoscopy

Ans. The key is C. US. [Initial presentation was of PID. But recurrance of symptoms suggests resistant condition like abscess formation].

36. A 27-year-old presents with abdominal pain, bleeding, vomiting and diarrhea. Her LMP was 7weeks ago. Examination: abdominal tenderness, BP90/60mmHg. What is the next appropriate management?
    A. Immediate laparotomy
    B. Laparoscopy
    C. Salpingotomy
    D. Salpingectomy
    E. MTX

Ans. The key is A. Immediate laparotomy. [BP is low. Patient is in shock and abdominal tenderness warns us about probable rupture].

37. Which of the following is NOT a physiological change during pregnancy?
    A. Tidal volume 500ml
    B. RBC vol 1.64L
    C. Cardiac output 6.5L/min
    D. Uterus weight 1.1kg
    E. ESR up by 4 fold

Ans. The key is A. Tidal volume 500 ml.

38. A patient presents with complete anuria following prolonged hypotension and shock in a patient who bled profusely from a placental abruption. What is the most probable diagnosis?
    A. Post viral infection
    B. Acute papillary necrosis
    C. Acute cortical necrosis
    D. HUS
    E. Renal vein thrombosis

Ans. The key is C. Acute cortical necrosis. [There are 2 reasons for this acute cortical necrosis. i) significant diminished arterial perfusion of the kidneys due to spasm of the feeding artery secondary to profuse bleeding from placental abruption ii) DIC secondary to placental abruption].

39. A 45-year-old lady came to family planning clinic for contraception advice. She is not keen to bepregnant for the next 3 years. Her recent US showed multiple small submucosal fibroid. What is thebest method of contraception for her?
    A. Etonogestrol
    B. COCP
    C. IUS
    D. POP
    E. IUCD

Ans. The key is C. IUS. [IUS gives 3-5 yrs long contraception. It also helps to shrink the fibroid. IUS is contraindicated if fibroids distord the uterine cavity but if not distorted as here with small fibroids it is still the contraception of choice].

40. A lady presents with abdominal pain, dysuria, dyspareunia and vaginal discharge. What is your next step?
    A. Laparoscopy
    B. High vaginal swab
    C. Hysteroscopy
    D. Laparotomy
    E. US

Ans. The key is B. High vaginal swab. [Probable diagnosis is PID].

41. A 28-year-old pregnant woman with polyhydramnios and SOB (shortness of breath) comes for an anomaly scan at 31 weeks. US absence of gastric bubble. What is the most likely diagnosis?
    A. Duodenal atresia
    B. Esophageal atresia
    C. Gastrochiasis
    D. Exomphalos
    E. Diaphragmatic hernia

Ans. The key is B. Oesophageal atresia.

42. A 20-year-old pregnant 32 weeks by date presents to the antenatal clinic with history of painless vaginal bleeding after intercourse. Examination: P/A – soft and relaxed, uterus dates, CTG reactive. Choos the single most likely diagnosis?
    A. Abruption of placenta 2nd to pre-eclampsia
    B. Antepartum hemorrhage
    C. Placenta previa
    D. Preterm labor
    E. Placenta percreta

Ans. The key is C. Placenta previa.

43. A 65-year-old presents with dyspareunia after sex. She is in menopause. She complains of bleeding after sex. What is the most probably diagnosis?
    A. Cervical ca

B. Endometrial ca
C. Ovarian ca
D. Breast ca
E. Vaginal ca

Ans. The key is B. Endometrial carcinoma. [In post menopausal women, vaginal bleeding is likely due to endometrial carcinoma].

44. A 24-year-old primigravida who is 30 week pregnant presents to the labor ward with a history of constant abdominal pain for the last few hours. She also gives a history of having lost a cupful of fresh blood per vagina before the pain started. Abdominal examination: irritable uterus, CTG reactive. Choose the single most likely diagnosis?
    A. Abruption of placenta 2nd to pre-eclampsia
    B. Antepartum hemorrhage
    C. Placenta previa
    D. Vasa previa
    E. Revealed hemorrhage

Ans. The key is B. Antepartum hemorrhage. [Though presentation indicates abruption placenta but abrutio placenta 2nd to pre-eclumpsia can't be the option as no features are suggestive of pre-eclumpsia here. So better option is B. Antepartum hemorrhage which also includes abruption placenta. Only bleeding cannot indicate whether it is concealed, mixed or revealed].

45. A primiparous woman with no previous infection with herpes zoster is 18weeks pregnant. She had recent contact with a young 21 year old patient having widespread chicken pox. What is the most suitable management for the pregnant lady?
    A. Acyclovir PO
    B. Acyclovir IV +IVIG
    C. Acyclovir IV
    D. Reassure
    E. IVIG

Ans. The key is E. IVIG. [If the pregnant woman is not immune to VZV and she has had a significant exposure, she should be offered varicella-zoster immunoglobulin (VZIG) as soon as possible. VZIG is effective when given up to 10 days after contact (in the case of continuous exposures, this is defined as 10 days from the appearance of the rash in the index case). RCOG guideline].

46. What is the most appropriate antibiotic to treat uncomplicated chlamydial infection in a 21 year old female who isn't pregnant?
    A. Erythromycin
    B. Ciprofloxacin
    C. Metronidazole
    D. Cefixime
    E. Doxycycline

Ans. The key is E. Doxycicline. [Doxycycline 100 mg twice-daily for seven days or a single dose of 1 g of azithromycin or Erythromyin 500 mg twice daily for 14 days or four times daily for seven days or

Ofloxacin 200 mg twice-daily or 400 mg once-daily for 7 days. In pregnant Azithromycine 1g single dose is recommended then erythromycin 500 mg twice daily for fourteen days or four times daily for seven days. Then amoxicillin 500 mg three times daily for 7 days].

47. A 39-year-old woman has not had her period for 10months. She feels well but is anxious as her mother had an early menopause. Choose the single most appropriate initial investigation?
    A. Serum estradiol conc.
    B. Serum FSH/LH
    C. Serum progesterone conc.
    D. None
    E. Transvaginal US

Ans. The key is B. Serum FSH/LH [here serum oestrogen is also important as i) low oestrogen + low FSH + low LH suggest hypothalamic amenorrhoea and i) low oestrogen + high FSH + high LH suggest premature ovarian failure! So the main determinant is serum FSH/LH. Likely cause here is premature ovarian failure].

48. A 23-year-old woman with painless vaginal bleeding at 36 weeks pregnancy otherwise seems to benormal. What should be done as next step?
    A. Vaginal US
    B. Abdominal US
    C. Vaginal exam
    D. Reassurance

Ans. The key is A. Vaginal US.[Painless vaginal bleeding at 36 weeks indicates the diagnosis of placenta previa, which can be better evaluated by vaginal US. Previously any vaginal procedure was not done in suspected placenta previa which has no longer found harmful now like vaginal ultrasound even in advanced pregnancy].

49. A 24-year-old woman has 8 weeks amenorrhea, right sided pelvic pain and vaginal bleeding. She is apyrexial. Peritonism is elicited in the RIF. Vaginal examination reveals right sided cervical excitation.What is the most probable diagnosis?
    A. Ectopic pregnancy
    B. Salpingitis
    C. Endometriosis
    D. Ovarian torsion
    E. Ovarian tumor

Ans. The key is A. Ectopic pregnancy. [Salpingitis, Endometriosis, overian torsions do not associated with amenorrhoea. In ovarian tumour three main features are i) increased abdominal size and persistent bloating (not bloating that comes and goes) ii) persistent pelvic and abdominal pain iii) difficulty eating and feeling full quickly, or feeling nauseous. Patient with pelvic pain and vaginal bleeding, peritonism and cervical exitation obviously points towards Ectopic pregnancy].

50. A 26-year-old woman with regular menses and her 28-years-old partner comes to the GP surgery complaining of primary infertility for 2 years. What would be the single best investigation to see whether she is ovulating or not?

A. Basal body temp estimation
B. Cervical smear
C. Day2 LH and FSH
D. Day21 progesterone
E. Endometrial biopsy

Ans. The key is D. Day 21 progesterone. [Mid-luteal progesterone level to assess ovulation: If low, it may need repeating, as ovulation does not occur every month. The blood test is taken seven days before the anticipated period, that is on day 21 of a 28-day cycle. However, this day will need to be adjusted for different lengths of cycle. Ref: patient.co.uk].

51. A 23-year-old woman is being followed up 6 weeks after a surgical procedure to evacuate the uterus following a miscarriage. The histology has shown changes consistent with a hydatidiform mole. What is the single most appropriate investigatigation in this case?
    A. Abdominal US
    B. Maternal karyotype
    C. Paternal blood group
    D. Serum B-HCG
    E. Transvaginal US

Ans. The key is D. Serum β-HCG. [When you are first diagnosed with a hydatidiform mole, your hCG level will be raised. When the hydatidiform mole is treated (removed), the hCG level will usually return to a normal, non-pregnant amount and should remain so. If you develop GTN (gestational trophoblastic neoplasia), the hCG level can remain elevated or continue to rise further. So, this blood test is a good way to check for the possible development of GTN (Gestational trophoblastic neoplasia).

52. A 28-year-old woman has been admitted at 38 weeks gestation. Her BP is 190/120mmHg and proteinuria +++. Immediately following admission she has a grand-mal seizure. What is the single most appropriate initial management?
    A. Diazepam IV
    B. Fetal CTG
    C. Hydralazine IV
    D. Immediate delivery
    E. Magnesium sulphate IV

Ans. The key is E. Magnesium sulphate IV. [patient has established eclampsia. So she should be treated with Magnesium sulphate as with 4g magnesium sulfate in 100mL 0.9% saline IVI over 5min + maintenance IVI of 1g/h for 24h. Beware depressed respiration. If recurrent seizure give 2g IVI magnesium sulfate over 5 min. Check tendon reflexes and respiratory rate every 15min. Stop magnesium sulfate IVI if respiratory rate <14/min or tendon reflex loss, or urine output <20mL/h]. [OHCS, 9th edition, page 49].

53. A 27-year-old woman had pre-eclampsia and was delivered by C-section. She is now complaining of RUQ (right upper quadrant) pain different from wound pain. What investigation will you do immediately?
    A. Coagulation profile
    B. LFT
    C. Liver US

D. MRCP
E. None

Ans. The key is B. LFT. [In a post ceasarian patient having pre-eclampsia RUQ pain different from wound pain points towards the diagnosis of HELLP syndrome. So immediate investigation to be done is LFT].

54. A 34-year-old female presents with a foul smelling discharge. What set of organisms are we looking for to be treated here?
    A. Chlamydia, gonorrhea
    B. Chlamydia, gardenella
    C. Chlamydia, gonorrhea, gardenella
    D. Gonorrhea, gardenella
    E. Gardenella only

Ans. The key is E. Gardenella only. [Here foul smelling discharge is caused by gardenella. So most acceptable answer is E. Gardenella only].

55. A 39-year-old woman will undergo tubal sterilization and she wants to know the failure rate of this type of sterilization.
    A. 1:50
    B. 1:200
    C. 1:500
    D. 1:1000
    E. 1:5000

Ans. The key is B. 1:200.

56. A patient with previous history of HTN (hypertension), the membranes have ruptured and the cervix is 3cm dilated. 4 hours later on examination showed that the cervix was still 3cm dilated. What is the single most appropriate management for her labor?
    A. Repeat vaginal examination in 4h
    B. CTG
    C. C-section
    D. External rotation
    E. IV syntocin drip

Ans. The key is E. IV syntocinon drip. [There is no progress of labour in 4 hours. Hence syntocinon drip should be given].

57. A 27-year-old waitress has pelvic pain, dysmenorrhea and increasingly heavy periods. She alsocomplains of dyspareunia. There is generalized pelvic tenderness without peritonism. Pelvic USis normal. What is the most likely diagnosis?
    A. Endometriosis
    B. Uterine fibroid
    C. Pelvic congestion syndrome
    D. PID
    E. Tubal pregnancy

Ans. The key is C. Pelvic congestion syndrome. [In pelvic congestion syndrome there develops varicose veins in the lower abdomen from prolonged standing (as occurred here in a waitress who remains standing for long) with some pain syndromes like pelvic pain, dysmenorrea, dyspareunia and generalized pelvic tenderness without peritonism. Also there may be associated menorrhagia].

58. A 14-year-old girl is clinically obese. She has not started her periods yet and has severe acne. Among her investigations, a high insulin level is found. What is the most probable diagnosis?
    A. Cushing's syndrome
    B. Grave's disease
    C. Acquired hypothyroidism
    D. PCOS (polycystic ovary syndrome)
    E. Addison's disease

Ans. The key is D. PCOS. [It is not cushing's as insulin levels in cushing's are not usually raised! Here obesity, primary amenorrhea , acne and particularly high level of insulin makes the likely diagnosis to PCOS].

59. An 18-year-old girl with primary amenorrhea complains of severe abdominal pain every 4-8weeks which is now getting worse. Examination: lower abdominal mass is felt. What is the most probable diagnosis?
    A. Ectopic pregnancy
    B. Ovarian carcinoma
    C. Hematometrium
    D. Biliary colic
    E. Renal carcinoma

Ans. The key is C. Hematometrium. [Primary amenorrhea and periodic pain indicate hematometrium either secondary to imperforated hymen or vaginal septum].

60. A 32-year-old woman P3 of 39weeks gestation reports having spontaneous ROM (rupture of membrane) 4days ago. She didn't attend the delivery suite as she knew that would happen and had already decided on a home birth. Today she feels very hot and sweaty. She thought that she was starting to have labour pains but she describes the pain as more constant. Exam: uterus is tender throughout. Blood tests show raised CRP and WBC. Select the most likely diagnosis?
    A. Round ligament stretching
    B. Chorioamnionitis
    C. Uterine rupture
    D. Labor
    E. DIC

Ans. The key is B. Chorioamnionitis. [Prolonged rupture of membrane can lead to chorioamnionitis].

61. A 42-year-old overweight smoker comes with heavy periods. A scan reveals a normal uterus. She would like a long term treatment with minimal side effects that would offer treatment for the menorrhagia and provide contraception. She is unsure whether she would like more

children. She is adamant that she doesn't want surgery as she is terrified of the prospect. Select the best management for her menorrhagia?
A. COCP
B. GrH analogues
C. IU/systemic progesterone
D. NSAIDs
E. Copper containing IUCD

Ans. The key is C. IU/systemic progesterone. [As patient is smoker, COCP should be avoided. Copper containing IUCD worsens bleeding. In the given case option C. i.e.mirena is most suitable].

62. You are called to see a 20 year old woman 2 hour post-LSCS (lower segment cesarean section). She has not passed urine since her operation. She denied any urinary symptoms preoperatively. Examination: appears unwell, temp 37.5C, BP 94/73mmHg, pulse 116bpm, saturation 97%. Her abdomen is distended with tenderness in the left flank and suprapubic region. Bowel sounds are not audible. Choose the most appropriate post cesarean section complication for this lady?
A. UTI
B. Urinary tract injury
C. Pleurisy
D. Acute pyelonephritis
E. Paralytic ileus

Ans. The key is B. Urinary tract injury.

63. A 40-year-old teetotaler woman is recovering from a hysterectomy 2 days ago. At night she becomes agitated and complains of seeing animals and children walking around the ward. What is the most likely diagnosis?
A. Delirium tremens
B. Toxic confusional state
C. Hysteria
D. Mania
E. Drug induced personality disorder

Ans. The key is B. Toxic confusional state. [This is not delirium tremens as the womean is teetotaler].

64. A 28-year-old woman who is 32 weeks pregnant in her 3rd pregnancy is diagnosed as a case of placental abruption. After all the effective measures, she is still bleeding. What is the underlyingpathology?
A. Clotting factor problem
B. Clauser's syndrome
C. Platelet problem
D. Succiturate lobe
E. Villamentous insertion of placenta

Ans. The key is A. Clotting factor problem.

65. A 28-year-old pregnant lady presents with severe lower abdominal pain with excessive per vaginal bleeding at 34 weeks of gestation. What should be the initial investigation of choice?
    A. Coagulation profile
    B. US abdomen
    C. CT pelvis
    D. D-dimer
    E. Kleihauer test

Ans. The key is B. US abdomen. [Likely case of abruption placenta (as excessive bleeding probably revealed type) for which initial investigation of choice is US abdomen. Other features that will favour abruptio is hard uterus and evidence of fetal distress. It will be difficult to feel the fetal parts].

66. A 33-year-old female presents with sudden severe colicky abdominal pain in her RIF (right iliac fossa). A mobile mass is felt on examination. What is the most likely diagnosis?
    A. PID
    B. Appendicitis
    C. Ovarian torsion
    D. Constipation

Ans. The key is C. Ovarian torsion.

67. A 35-year-old primigravida post Cesarian-section complains of inability to void. She denies dysuria butcomplains of fullness. She was treated with an epidural for analgesia. What is the single mostappropriate investigation?
    A. MSU
    B. US abdomen
    C. US KUB
    D. Serum calcium

Ans. The key is B. US abdomen. [C. US KUB. Is also correct! This is a case of POUR (post operative urinary retention). We should do US to know the urinary volume (urine volume in bladder). If <400ml we shall observe. When volume is >600ml we should do catheterization].

68. A 53-year-old lady presents with hot flash and night sweats. Her LMP was last year. She had MIrecently. What is the most appropriate management for her?
    A. Raloxifene
    B. Estrogen
    C. COCP
    D. Evening primrose
    E. Clonidine

Ans. The key is E. Clonidine. [COCP is absolutely contraindicated in recent MI patients].

69. A young girl presented to OB-GYN assessment unit with lower abdominal pain and per vaginal bleeding after a history of hysterosalpingograph as a part of her infertility treatment. Observation:BP 90/50mmHg, pulse120bpm, exam revealed rigid abdomen. What is the most appropriatenext investigation?

A. CT
B. XR erect and supine
C. US abdomen
D. Coag profile
E. CXR

Ans. The key is C. US abdomen. [Likely cause of bleeding and shock is ruptured fallopian tube for which appropriate next investigation is US abdomen].

70. A 21-year-old woman who is on COCP had to take azithromycin. What should be advised for hercontraception?
    A. Using 7d condoms after antibiotics and avoid pill free break
    B. Using 14d condoms after antibiotics and avoid pill free break
    C. Using 7d condoms after antibiotics
    D. No extra precaution
    E. Using 14d condoms after antibiotics

Ans. The key is D. No extra precaution. [Before it was thought that antibiotics like azithromycin reduce the efficacy of COCP. But later it was established that practically no significant changes occur and so no need of any extra precaution].

71. Pregnant lady had her antenatal screening for HIV and Hep B. what more antenatal infections should she be screened for?
    A. Rubella and syphilis
    B. Toxoplasma and rubella
    C. Syphilis toxoplasma
    D. Hep C & E
    E. Hep A & C

Ans. The key is A. Rubella and syphilis.

72. A 26-year-old lady came with abdominal pain, vaginal discharge and low grade fever. What is the most likely diagnosis?
    A. HELLP syndrome
    B. Acute PID (pelvic inflammatory disease)
    C. Ectopic pregnancy
    D. Appendicitis

Ans. The key is B. Acute PID.

73. A 26-year-old lady presents with high fever, lower abdominal pain and purulent vaginal discharge. She looks very unwell. What is the most appropriate management?
    A. Tetracycline 250mg QD
    B. Doxycycline 100mg BD and metronidazole 400mg BD
    C. IV Ceftriaxone 2g with doxycycline 100mg
    D. IV ceftriaxone 2g with doxycycline 500mg
    E. Ofloxacin 400mg BD and metronidazole 400mg BD

Ans. The key is C. IV Ceftriaxone 2g with doxycycline 100mg. [The disease is severe needing inpatient management with IV Ceftriaxone 2g + IV doxycycline 100 mg].

74. A 39weeks pregnanct woman came to labor suite 3 days after an obstructed labour presents with pain and swelling of one leg. Exam: leg has blue mottling and is cold. What is the diagnosis?
    A. DVT
    B. Post phlebitis syndrome
    C. Embolus
    D. Varicose vein
    E. Herpes gladiatorum

Ans. The key is C. Embolus.

75. An-8-weeks pregnant woman presents with persistent vomiting and weight loss. Examination: HR(heart rate) 110bpm. Dehydration was corrected with NS infusion and K+. The condition didn't improve so IM cyclizine was given. She is still vomiting. What is the next appropriate management?
    A. IV fluids
    B. IV antiemetics
    C. IV steroids
    D. Terminate pregnancy
    E. Thiamine

Ans. The key is B. IV antiemetics. [IV antiemetics may be tried in patient's of hyperemesis gravidarum not responding to IM antiemetics].

76. A 28-year-old lady presents with dyspareunia and dysmenorrhea. She is very obese. She now wants reversible contraceptive method. Which of the following will be most suitable for her?
    A. Mirena
    B. COCP
    C. POP
    D. Copper T
    E. Barrier method

Ans. The key is A. Mirena. [Mirena has beneficial effect on both dyspareunia and dysmenorrhea but with some degree of weight gain (nearly 3.1kg after 5 years of use which is less than weight gain with other methods like depot provera (8.2 kg) and 4.9 kg with copper IUD].

77. A young lady who is 28 weeks pregnant presents with vaginal bleeding. She has lost about 200 ml of blood. Examination: uterus is tender. Resuscitation has been done. What is the most important investigation to establish the diagnosis?
    A. US
    B. CT
    C. D-dimer
    D. Clotting profile
    E. None

Ans. The key is A. US. [Antepartum hemorrhage. Most important investigation to establish the diagnosis is US].

78. A 32-year-old woman wants reversible form of contraception. She has one child delivered byemergency C-section. She also suffers from migraine and heavy periods. What is the mostsuitable form of contraception for this lady?
    A. COCP
    B. Mini pill
    C. IUCD
    D. Barrier method
    E. Abstinence

Ans. The key is B. Mini pill.

79. A 27-year-old lady after C-section developed epigastric pain after 8 hours. What is the appropriate investigation?
    A. ABG
    B. Coag profile
    C. Liver enzyme
    D. Liver biopsy

Ans. The key is C. Liver enzyme. [Epigastric pain is a warning sign of HELLP syndrome. So to rule out HELLP syndrome Liver enzymes should be done].

80. An 8 weeks pregnant lady is brought to the emergency department due to severe vomiting. She was administered IV fluids and oral anti-emetics. She still can't tolerate anything orally. What is the next best treatment?
    A. IV feeding
    B. IV antiemetics
    C. Termination of pregnancy
    D. PPI
    E. IV steroid

Ans. The key is IV antiemetics. [If oral antiemetics are not tolerated IV antiemetics are tried].

81. A patient came with dyskaryosis to the OPD. She is a heavy smoker and alcoholic. Cervical smear shows abnormal cells. What is the best advice for her?
    A. Colposcopy
    B. Biopsy
    C. Endocervical sample
    D. Repeat after 4m
    E. None
    F. Cone biopsy

Ans. The key is A. Colposcopy. [Patient with dyscariosis should go for colposcopy].

82. A lady came for OB-GYN assessment unit with history of 8 weeks pregnancy and bleeding per vagina for last 2 days. On bimanual examination, uterus 8weeks in size. On speculum examination, cervical os is closed. How do you confirm the viability of the fetus?
    A. Transvaginal US
    B. Serum BHCG
    C. Urinary BHCG
    D. Abdominal US
    E. Per speculum exam

Ans. The key is A. Transvaginal US. [Viability of the fetus is better assessed with transvaginal US. TVU can be done throught pregnancy even if there is vaginal bleeding. It should be avoided once the membrane is ruptured to avoid chance of fetal infection].

83. A 21-year-old female in her first pregnancy at 38 weeks was brought to the emergency department with generalized tonic clonic seizure. IV MgSO4 was given but fits was not controlled. She is having fits again. What is the single most important immediate management of this patient?
    A. IV MgSO4
    B. IV diazepam
    C. Immediate C-section
    D. IV phenytoin
    E. MgSO4 bolus
    F. IV lorezepam

Ans. The key is E. MgSO4 bolus. [Treat a first seizure with 4g magnesium sulfate in 100mL 0.9% saline IVI

over 5min + maintenance IVI of 1g/h for 24h. Beware of respiration.

If recurrent seizure give 2g IVI magnesium sulfate over 5 min.

Check tendon reflexes and respiratory rate every 15min.

Stop magnesium sulfate IVI if respiratory rate <14/min or tendon reflexloss, or urine output <20mL/h. Have IV calcium gluconate ready in case ofMgSO4 toxicity: 1g (10mL) over 10 min if respiratory depression.

Use diazepam once if fits continue (eg 5–10mg slowly IV). If seizures continue,ventilate and consider other causes (consider CT scan). OHCS, 9th edition, page-49].

84. A 24-year-old lady with BMI 30 complains of facial hair growth and history of amenorrhea. FSH 10.9, prolactin400IU, estradiol 177.8mmol/l, progesterone normal, LH 33.2. What is the most probable diagnosis?
    A. PCOS
    B. Pregnancy
    C. Cushing's disease
    D. CAH
    E. POF

Ans. The key is A. PCOS. [Clinical features (obesity, hirsutism, amenorrhea etc.) are consistent with PCOS. We know in PCOS LH:FSH ratio is 2:1 or 3:1. Here LH is 33.2 and FSH is 10.9 which also supports diagnosis of PCOS].

85. A lady comes with a missing IUCD thread. Her LMP was 2 weeks ago. What is the single most appropriate next step in management?
    A. Abdominal US
    B. Prescribe contraceptives
    C. CT
    D. Serum BHCG
    E. Vaginal exam

Ans. The key is E. Vaginal exam. [LOST THREAD: First confirm the thread is not in position by vaginal examination. If not present ultrasound should be arranged to locate the device.

If ultrasound does not locate the device and there is no definite history of expulsion then abdominal X-ray should be performed to look for an extrauterine device.

Expulsion should not otherwise be assumed.

Hysteroscopy can be helpful if ultrasound is equivocal.

Surgical retrieval of an extrauterine device is advised].

86. A 32-year-old woman presents with history of lower abdominal pain and vaginal discharge. She had her menses 4 weeks ago. She has a temp of 38.6C. What is the most suitable diagnosis?
    A. Acute appendicitis
    B. Acute PID
    C. Endometriosis
    D. Ectopic pregnancy
    E. UTI

Ans. The key is B. Acute PID. [Fever, lower abdominal pain and vaginal discharge are features of PID].

87. A 40-year-old female was on COCP which she stopped 6 months ago. But she has not had her periods since then. Labs: FSH22, LH24, prolactin700, estradiol80. What is the most appropriate diagnosis?
    A. Hypothalamic amenorrhea
    B. Post pill amenorrhea
    C. Prolactinoma
    D. Pregnancy
    E. Premature ovarian failure

Ans. The key is E. Premature ovarian failure. [FSH and LH are raised in ovarian failure; an FSH level ≥20 IU/l in a woman aged around 40 with secondary amenorrhoea indicates ovarian failure. In POF there is also a mild to moderate rise in prolactin].

88. A 37-year-old lady stopped taking COCP 18 month ago and she had amenorrhea for 12 month duration. Laboratory findings: FSH 8, LH 7, prolactin 400, estradiol 500. What is the cause?
    A. Hypothalamic amenorrhea
    B. PCOS
    C. Prolactinoma
    D. Post pill amenorrhea
    E. POF

Ans. The key is D. Post pill amenorrhea. [Post pill amenorrhea= failure to resume menses within 6 months of stopping pill, she was amenorrheic for 12 months].

89. A patient presents with mild dyskaryosis. 1 year ago smear was normal. What is the most appropriate next step?
    A. Cauterization
    B. Repeat smear
    C. Swab and culture
    D. Cone biopsy
    E. Colposcopy

Ans. The key is E. Colposcopy. [In mild dyscariosis colposcopy should be done with HPV (human papilloma virus) test].

90. A patient presents with mild dyskaryosis. 1 year ago smear was normal. What is the most appropriate next step?
    A. Cauterization
    B. Repeat smear
    C. Swab and culture
    D. Cone biopsy
    E. Colposcopy

Ans. The key is E. Colposcopy. [In mild dyscariosis colposcopy should be done with HPV test].

91. An African lady presents with heavy but regular periods. Her uterine size correlates to 14weeks pregnancy. What is the most appropriate diagnosis?
    A. Blood dyscrasia
    B. Hematoma
    C. Fibroids
    D. Adenomyosis
    E. Incomplete abortion

Ans. The key is C. Fibroids. [Regular heavy menstruation in a uterus of 14 wk size is highly suggestive of fibroid].

92. A 29-year-old at 38weeks GA presents with a 2 hour history of constant abdominal pain. She then passes 100ml of blood per vagina. What is the next appropriate investigation?
    A. USS
    B. CTG

C. Clotting screen
D. Hgb
E. KleihauerBetke test

Ans. The key is A. USS. [Clinical case of abruption placenta. If patient is not in labour serial USS for fetal growth should be performed as in present case. If patient is in labour CTG].

93. A 26-year-old woman had amenorrhea for 10 weeks and is pregnant. She experiences hyperemesis. Now she presents with vaginal bleed. Examination: uterus16weeks, closed os. What is the most probable diagnosis?
    A. Thyrotoxicosis
    B. Hyperemesis gravidarum
    C. Twins
    D. Wrong dates
    E. Molar pregnancy

Ans. The key is E. Molar pregnancy. [In hytaditidiform mole uterus becomes more in size than actual gestational age and due to production of large amount of gonadotrophin by moles patient suffers from severe vomiting i.e. hyperemesis. There also occurs vaginal bleeding].

94. A pregnant woman of G2, GA 11 weeks presents with heavy vomiting, headache and reduced urine output. Urine analysis shows ketonuria. Choose the next best step?
    A. US
    B. Oral fluid replacement
    C. Serum BHCG
    D. Parental anti-emetics
    E. IV fluids

Ans. The key is E. IV fluids. [Hyperemesis gravidarum with oliguria and ketonuria. IV fluid should be started to prevent renal failure].

95. A patient had inflammatory changes on cervical smear. There is no vaginal discharge, no pelvic pain and no fever. What is the next step?
    A. Repeat smear in 6m
    B. Take swab
    C. Treat with antibiotics
    D. Colposcopy
    E. Cone biopsy

Ans. The key is A. Repeat smear in 6 months.

96. A 37-years-old infertile lady with 5cm subserosal and 3cm submucosal fibroid is trying to get pregnant. Which is the most suitable option?
    A. Clomifen therapy
    B. IVF
    C. Myomectomy
    D. Hysterectomy

E. IU insemination

Ans. The key is C. Myomectomy. [Fibroids are preventing from her being pregnant. So myomectomy is the most suitable option to let her get pregnant].

97. A woman who is on regular COCP presented to you for advice on what to do as she has to now start to take a course of 7days antibiotics. What would you advice?
    A. Continue regular COC
    B. Continue COCP and backup contraception using condoms for 2days
    C. Continue COCP and backup contraception using condoms for 7days
    D. Continue COCP and backup contraception using condoms for 2weeks

Ans. The key is A. Continue regular COCP. [Before it was thought that antibiotics alter the gut flora and ethinyloestradiol is not conjugated. There is more ethinyloestradiol passed in the stool. So pregnancy and breakthrough bleeding can occur. But later it was established that the changes of gut flora is usually negligible for COCP conjugation to occur and hepatic enzyme induction may be more relavant reason. But it was also proved that for strong enzyme inducer like Rifampicin and Rifabutin there may need extra protection but other antibiotics practically does not reduce potency of COCP and hence except only drug like rifampicin or rifabutin for other antibiotics no additional precautions are needed].

98. A lady presents with hot flashes and other symptoms of menopause. What is the treatment option?
    A. Raloxifen
    B. HRT
    C. Bisphosphonate
    D. COCP
    E. Topical estrogen

Ans. The key is B. HRT.

99. A 28-year-old woman at 34 weeks GA (gestational age) for her first pregnancy attends antenatal clinic. Her blood results: Hgb 10.6, MCV 95, MCHC 350. What do you do for her?
    A. Folate
    B. Dextran
    C. Ferrous sulphate
    D. None
    E. IV FeSO4
    F. Explain this physiologic hemodynamic anemia
    G. Blood transfusion

Ans. The key is F. Explain this physiologic hemodynamic anemia. [According to NICE, cut offs for iron supplements:

at booking (8-10 weeks)- if less than 11

at 28 weeks and further- if less than 10.5

if less than these values=> give iron].

100. A 34-year-old woman who never had fits or high BP developed fits 6 hours after delivery of a term healthy child. What is the most likely diagnosis?
A. Eclampsia
B. Preeclampsia
C. Epilepsy
D. Pulmonary embolism
E. Pregnancy induced HTN

Ans. The key is A. Eclampsia. [In eclampsia seizers occurs within 24 hours mostly and majority within 12 hours. Also single seizure doesn't support epilepsy strongly. So likely answer is A. Eclampsia].

101. A-30-year old lady who already has one child through a previous C-section demands a reversible contraception. She presently experiences heavy and painful periods. What is the most appropriate contraceptive you will recommend for her?

A. COCP
B. POP
C. Implanon
D. Danazol
E. Mirena
F. IUCD

Ans. The key is E. Mirena.

102. A 32-year-old woman comes with intermenstrual bleeding. Her last cervical smear was 1year ago and was negative. What test would you recommend for her initially?
A. Colposcopy
B. Cervical smear
C. Endocervical swab
D. Transvaginal US
E. Pelvic CT

Ans. The key is C. Endocervical swab. [Smear can only be done if it is due or overdue, not in any time or not as needed basis. Here patients next smear will be due after 2 more years. In reproductive years cervisitis due to infection particularly with chlamydia is very common. So initially we shall take endocervical swab to rule out infection].

103. A 20-year-old woman has had abdominal pain in the LIF (left iliac fossa) for 6 weeks duration. Over the past 48 hour, she has severe abdominal pain and has a fever of 39.1C. Pelvic US shows a complex cystic 7cm mass in the LIF. What is the most likely diagnosis?
A. Endometriosis
B. Dermoid cyst
C. Ovarian ca
D. Tubo-ovarian abscess
E. Ectopic pregnancy

Ans. The key is D. Tubo-ovarian abscess.

104. A woman is 16 weeks pregnant and she is worried about abnormal chromosomal anomaly in her child. What is the definitive investigation at this stage?
   A. Amniocentesis
   B. CVS (Chorionic Villous Sampling)
   C. Parents karyotyping
   D. Coomb's test
   E. Pre-implantation genetic diagnosis

Ans. The key is A. Amniocentesis. [Amniocentesis is done between 14 to 16 weeks of gestation. CVS is done prior to 15 weeks. So the option is A. Amniocentesis].

105. A 39-year-old woman in her 36th weeksof GA (gestational age) with acute abdominal pain is rushed for immediate delivery. Her report: BP 110/60mmHg, Hgb low, bilirubin 22, AST 35, Platelet count 60, APTT 60, PT 30, Fibrinogen 0.6. What is the cause?
   A. Pregnancy induced hypertension
   B. DIC
   C. HELLP syndrome
   D. Acute fatty live
   E. Obstetric cholestasis

Ans. The key is B. DIC. [It is not HELLP syndrome as liver enzyme is not elevated. Acute abdominal pain may indicate concealed abruption placenta which may lead to DIC].

106. A 36weeks pregnant woman presents with sudden onset of uterine pain and bleeding, uterus is tender, no previous LSCS. What is the most appropriate cause?
   A. Preeclampsia
   B. DIC
   C. Placental abruption
   D. Placental previa
   E. Ectopic pregnancy
   F. Missed abortion
   G. Ectropion

Ans. The key is C. Placental abruption. [Painful bleeding at 36th week is placental abruption (either revealed or mixed type)].

107. A 28 weeks pregnant woman presents with uterine bleeding after sexual intercourse. What is the most appropriate cause?
   A. Preeclampsia
   B. DIC
   C. Placental abruption
   D. Placental previa
   E. Ectopic pregnancy
   F. Missed abortion
   G. Ectropion

Ans. The key is G. Ectropion. [Post coital bleeding can be either placenta previa or cervical ectropion. But as ectropion is commoner in pregnancy so it is the option here].

108. A 6 weeks pregnant woman presents with abdominal pain. She has previous history of PID. What is the most likely diagnosis?
    A. Preeclampsia
    B. DIC
    C. Placental abruption
    D. Placental previa
    E. Ectopic pregnancy
    F. Missed abortion
    G. Ectropion

Ans. The key is E. Ectropic pregnancy. [PID is a recognized risk factor for ectopic pregnancy. Also pain without bleeding at 6th week support the diagnosis of ectopic pregnancy].

109. A 33 weeks pregnant woman presents with vaginal bleeding, low Hgb, low platelet, increased bilirubin, AST normal, APTT & PT increased. What is the most likely diagnosis?
    A. Preeclampsia
    B. DIC
    C. Placental abruption
    D. Placental previa
    E. Ectopic pregnancy
    F. Missed abortion
    G. Ectropion

Ans. The key is B. DIC.

110. A 25-year-old lady at her 28th weeks of GA (gestational age) came for check up. Her BP is 160/95mmHg, protein in urine is 6g/d. What is the most likely diagnosis?
    A. Essential HTN
    B. Gestational HTN
    C. Chronic HTN
    D. Preeclampsia

Ans. The key is D. Preeclampsia.

111. A 32-year-old woman has a history of spontaneous abortions at 6 weeks, 12 weeks, and 20 weeks. She is now keen to conceive again. Which of the following would you prescribe for the next pregnancy?
    A. $MgSO_4$
    B. Aspirin
    C. Warfarin
    D. Mefenemic acid
    E. Heparin

Ans. The key is B. Aspirin. [Patient of antiphospholipid syndrome had 3 fetal losses and no thromboembolic event and now wants to be pregnant. In such case prophylactic treatment with low dose aspirin is indicated].

112. A 42-year-old woman who smokes 20 cigarettes/day presents with complains of heavy bleeding and prolonged menstrual period. What is the most appropriate treatment for her?
    A. Tranexemic acid
    B. COCP
    C. Mefenemic acid
    D. IUCD
    E. Norethisterone

Ans. The key is A. Tranexemic acid.

113. A 17-year-old senior school girl with complain of prolonged irregular menstrual period and heavy blood losses. What is the most appropriate treatment for her?
    A. Mefenemic acid
    B. COCP
    C. POP
    D. IUCD
    E. Mirena

Ans. The key is B. COCP. [In irregular period: COCP except the contraindications for it and in that case POP should be used].

114. A 32-year-old presents with heavy blood loss, US (ultrasound): uterine thickness>14mm. What is the most appropriate treatment for her?
    A. Mefenemic acid
    B. COCP
    C. POP
    D. IUCD
    E. IU system (mirena)

Ans. The key is E. IU system (mirena). [Simple endometrial hyperplasia without atypia responds to high-dose progestogens, with repeat histology after three months. This can be effectively delivered by the levonorgestrel intrauterine system (IUS). Source: patient.info].

115. A 37-year-old woman presents with heavy bleeding. Investigation show subserosal fibroid 4cm and intramural fibroid 6cm. Which is the most appropriate treatment?
    A. UAE
    B. Abdominal hysterectomy
    C. Hysteroscopic Myomectomy
    D. Vaginal Hysterectomy
    E. Abdominal myomectomy

Ans. The key is E. Abdominal myomectomy. [As patient is young we should go for myomectomy. As hysteroscopic myomectomy is suitable for mainly submucosal fibroids. We should go for Abdominal myomectomy which will deal with both subserosal and intramural fibroids].

116. A woman with sickle cell disease complains of heavy menstrual blood loss. What is the most appropriate treatment?
    A. COCP
    B. Mirena
    C. Depot provera
    D. Copper IUS
    E. Transdermal patch

Ans. The key is C. Depot provera. [Hormone and barrier methods are all acceptable choices but intrauterine devices are not recommended, as they may be associated with uterine bleeding and infection. Depot contraceptive (Depo-Provera) is safe and has been found to improve the blood picture and reduce pain crises. Source: patient.info].

117. A 17-year-old girl comes to see her GP after having unprotected sex 2 days ago. She asks if her GP can explain to her how this prescribed procedure would work by helping her not to get pregnant.
    A. It helps to prevent implantation
    B. It helps in preventing or delaying ovulation
    C. It causes an early miscarriage
    D. It releases progesterone and stops ovulation
    E. It causes local enzymatic reaction

Ans. The key is B. It helps in preventing or delaying ovulation. [There are two types of pills:

1. 1.5 mg of levonorgestrel pill. It should be taken within 72 hours (three days). It is thought to work mainly by preventing or delaying the release of an egg from your ovary, which normally happens each month (ovulation).

2. Ulipristal acetate (brand name ellaOne) is a type of emergency contraceptive pill that was launched in the UK in 2009. It is taken as one single tablet. Take the pill as soon as possible after unprotected sex. The earlier you take the pill, the more effective it is. It can be taken up to 120 hours (five days) after having unprotected sex. It is a type of hormone which seems to work by stopping or delaying release of an egg (ovulation).

IUCD prevent implantation. As she is sexually active hymen is ruptured and IUCD can be given to her. But with IUCD chance of ectopic pregnancy is much more!].

118. A 16-year-old girl who is normally fit and well attends her GP complaining of heavy and painful periods. She is requesting treatmen for these complaints. She denies being sexually active. Select the most appropriate management for her menorrhagia?
    A. Antifibrinolytics (tranexamic acid)
    B. COCP
    C. Endometrial ablation

D. IUS progestrogens (mirena)
E. NSAIDS (mefenamic acid)

Ans. The key is E. NSAIDs (mefenamic acid). [NSAIDS are firstline if there is dysmenorrhea and also very effective for menorrhagia and considered as potent as tranexamic acid in controlling menorrhagia].

119. A 36-year-old woman came with uterine bleeding. Vaginal US reveals uterine thickness 12mm. what is the most probable diagnosis?
A. Cervical ca
B. Endometrial ca
C. Ovarian ca
D. Breast ca
E. Vaginal ca

Ans. The key is B. Endometrial Ca. [Actually there is endometrial thickening and in general 12 mm means hyperplasia which may suggest endometrial Ca in this woman].

120. A 30-year-old woman has PID (pelvic inflammatory disease) which was treated with metronidazole and cephalosporin. It is getting worse. What is the next best investigation?
A. Endocervical swab
B. US
C. Laparotomy
D. High vaginal swab

Ans. The key is B. US. [Probable tubo-ovarian abscess].

121. A pregnant patient with Rh –ve who hasn't been previously sensitized delivers her first baby without any problem. What would be the latest time to administer anti-sensitization?
A. 6h PP
B. 24h PP
C. 48h PP
D. 72h PP
E. 5d PP

Ans. The key is D. 72h PP (72 hours postpartum).

122. A 30-year-old primigravida who is in her 30th weeks of GA (gestational age) presents to the L&D (labour and delivery unit) with absent fetal movements. She also complains of severe headache, heartburn and seeing floaters before her eyes for the last few days. Examinations: BP 170/110mmHg, urine protein ++++, rock hard uterus, no visible signs of fetal movements. Choose the single most likely diagnosis?
A. Abruption of placenta 2nd pre-eclampsia
B. Antepartum hemorrhage
C. Placenta previa
D. Primary PPH
E. IUFD
F. Abruption of placenta due to trauma

Ans. 2 keys A. Abruption of placenta 2nd pre-eclampsia. E. IUFD. Both are correct!

123. A 38-year-old woman, 10 days post partum, presents to her GP with a history of passing blood clots per vagina since yesterday. Examinations: BP 90/40mmHg, pulse 110bpm, temperaturex6 38C, uterus tender on palpation and fundus is 2cm above umbilicus, blood clots +++. Choose the single most likely diagnosis?
    A. Abruption of placenta 2nd preeclampsia
    B. Concealed hemorrhage
    C. Primary PPH
    D. Secondary PPH
    E. Retained placenta
    F. Scabies

Ans. The key is D. Secondary PPH. [Secondary PPH occurs from 24 hours after delivery. Usually occurs between 5 and 12 days].

124. A 22-year-old lady who is in her last trimester of pregnancy comes with history of exposure to a child diagnosed with chicken pox 1 day ago. She was investigated and was +ve for varicella antibody. What is the single most appropriate management?
    A. Give varicella Ig
    B. Quarantine
    C. Give varicella vaccination
    D. Oral acyclovir
    E. Reassure

Ans. The key is E. Reassure. [If you have antibodies in your blood, this means you have had chickenpox in the past, or have been immunised. No further action is then needed].

125. A 22-year-old woman who is 20 weeks pregnant came with pain and bleeding per vagina. Examination: os is not open. What is the single most likely diagnosis?
    A. Threatened abortion
    B. Missed abortion
    C. APH
    D. Miscarriage
    E. Inevitable abortion

Ans. The key is A. Threatened abortion.

126. A 32-year-old lady G1 (gravida 1), 28 weeks GA (gestational age) came to her ANC (antenatal care) with a concern about pain relief during labour. She has no medical illnesses and her pregnancy so far has been uncomplicated. She wishes to feel her baby being born but at the same time she wants something to work throughout her labour. What method of pain relief best matches this lady's request?
    A. C-section
    B. Pudendal block
    C. Entonox
    D. TENS

E. Pethidine

Ans. The key is C. Entonox. [This is a mixture of oxygen and nitrous oxide gas. Gas and air won't remove all the pain, but it can help to reduce it and make it more bearable].

127. A primipara at fullterm in labor has passed show and the cervix is 3 cm dilated. What is the single most appropriate management for her labor?
    A. Repeat vaginal examination in 4h
    B. CTG
    C. IV syntocinon drip
    D. Repeat vaginal examination in 2h
    E. Induction of labour

Ans. The key is A. Repeat vaginal examination in 4h.

128. A woman comes to the emergency department complaining of pain in the right side of the abdomen, she has 7 weeks amenorrhea. Her pregnancy test is +ve and US scan shows an empty uterus. What is the next step?
    A. Laparoscopy
    B. HCG measurements
    C. US
    D. Laparotomy
    E. Culdo-centhesis

Ans. A. Laparoscopy. [Surgery should be offered to those women who cannot return for follow-up after methotrexate or to those who have any of the following:

- Significant pain.
- Adnexal mass ≥35 mm.
- Fetal heartbeat visible on scan.
- Serum hCG level ≥5000 IU/L.

A laparoscopic approach is preferable. A salpingectomy should be performed, unless the woman has other risk factors for infertility, in which case a salpingotomy should be undertaken].

[If HCG >6000IU/L and an intrauterine gestational sac is not seen on trans-abdominal US, ectopic pregnancy is very likely, as is the case if HCG 1000–1500IU/L and no sac is seen on transvaginal Ultrasound].

129. A 68-year-old woman presents with post-coital bleeding following her first episode of sexual intercourse in 10 years. What is the single most likely cause that has led to post-coital bleeding?
    A. Endometrial ca
    B. Atrophic vaginitis

C. Endometrial polyp
D. Cervical ca
E. Cervical ectropion

Ans. The key is B. Atrophic vaginitis.

130. A 28-year-old woman 8 weeks GA (gestational age) had PID (pelvic inflammatory disease) treated previously and now comes with vaginal bleeding, rigid abdomen, BP 80/50mmHg, pulse 140bpm. What is the most probable diagnosis?
A. Threatened abortion
B. Miscarriage
C. Missed abortion
D. Tubal pregnancy
E. Inevitable abortion

Ans. The key is D. Tubal pregnancy. [Previous PUD is a risk factor for tubal pregnancy. Presented case is a case of ruptured ectopic pregnancy as there is vaginal bleeding, rigid abdomen and shock].

131. A 24-year-old woman has had lower abdominal pain for 12 hours. She is otherwise well. She is at 10 weeks GA (gestational age) in a planned pregnany. What is the single most appropriate test to investigate the cause of acute abdomen in this lady?
A. Abdominal US
B. Anti-phospholipid screen
C. CBC
D. Transvaginal US
E. Laparoscopy

Ans. The key is D. Transvaginal US. [D/D: ectopic pregnancy, renal colic, torsion of ovarian cyst, appendicitis etc. Transvaginal US will give better results in case of lower abdominal pain].

132. A patient is at term and in labour, the membranes have ruptured, the liquor contains meconium but the CTG is normal. The cervix is 3cm dilated. What is the single most appropriate action?
A. BP monitoring
B. CTG
C. C-section
D. Fetal scalp blood sample
E. Internal rotation

Ans. The key is B. CTG. [Till CTG is normal we should not switch to other option but continuing CTG. If CTG shows fetal distress then we have to do fetal scalp blood sampling to take decision about probable cesarean section. (Only abnormal CTG is not enough to take decision of cesarean section)].

133. A patient is at term and labor. The head has been delivered and you suspect shoulder dystocia. What is the single most appropriate action?
A. C-section
B. Episiotomy

C. External rotation
D. Fetal scalp blood sample
E. Instrumental delivery

Ans. The key is B. Episiotomy.

134. A 29-year-old female at 28 weeks of GA (gestational age) presents to you with complains of hard stools and constipation for last 2 weeks. CTG shows fetal tachycardia. What is the single most appropriate treatment?

A. Oral laxatives
B. Fiber diet
C. Phosphate enema
D. Lactulose
E. Reassure

Ans. The key is B. Fiber diet. [Changes to diet and lifestyle are often recommended as the first treatment for constipation. It includes high fiber diet and plenty of fluid, regular exercise etc.].

135. A 16-year-old girl presents with heavy bleeding. What is the most appropriate initial investigation?

A. Endometrial sampling
B. Transvaginal US
C. Hysteroscopy
D. Pelvic US
E. Exam under anesthesia

Ans. The key is D. Pelvic US.

136. A woman who is 7 weeks pregnant presents with excessive and severe vomiting and put on IV fluids and anti-emetic (ondansteron). She is complaining of severe headache and can't take oral fluids. What is the most appropriate management?

A. Termination of pregnancy
B. TPN
C. Feeds via NGT
D. P6 acupressure
E. IV hydrocortisone

Ans. The key is E. IV hydrocortisone. [Termination is the last resort! Before it IV hydrocortisone is tried. 1st oral antiemetics if fail parenteral antiemetics if fail iv hydrocortisone. Last resort is termination].

137. A young lady with primary amenorrhea has normal LH, FSH, estradiol and prolactin. Choose the single most likely diagnosis?

A. PCOS (polycystic ovarian syndrome)
B. POF (premature ovarian failure)
C. Absent uterus
D. Absent ovaries
E. Turner's syndrome

Ans. The key is C. Absent uterus. [Normal LH, FSH, estradiol and prolactin rule outs PCOS (increased LH, increased FSH, normal oestrogen. LH:FSH ratio is 2:1 or 3:1), POF (in POF, LH & FSH raised, FSH > 20 IU/L), Absent ovary will lead to low estradiol, high FSH and LH, Turner's syndrome: gonadal streaks, as absent ovaries].

138. An obese lady presents with primary amenorrhea. She has high LH, normal FSH and slightly high prolactin levels. Choose the single most likely diagnosis?
    A. PCOS (polycystic ovarian syndrome)
    B. POF (premature ovarian syndrome)
    C. Hypothyroidism
    D. Pregnancy
    E. Primary obesity

Ans. The key is A. PCOS. [High LH, high or normal FSH with slight rise in prolactin levels in an obese lady is suggestive of PCOS].

139. A 38-year-old lady presents with amenorrhea has very high LH and FSH levels, normal prolactin and low estradiol. Choose the single most likely diagnosis?
    A. PCOS (polycystic ovarian failure)
    B. POF (premature ovarian failure)
    C. Hypothyroidism
    D. Pregnancy
    E. Menopause

Ans. The key is B. POF. [High LH and FSH, normal prolactin and low estrogen in secondary amenorrhea in a lady under age 40 is highly suggestive of POF].

140. A 65-year-old lady presents with dyspareunia. What will you give her for her condition?
    A. HRT
    B. COCP
    C. Estrogen gel
    D. Testosterone gel

Ans. The key is C. Estrogen gel. [Seems to be atrophic vaginitis for which estrogen gel can be given].

141. A 35-year-old lady with subserosal fibroid 4cm and submural fibroid 6cm is planning for a child. Which way will you remove the fibroids?
    A. Laproscopy
    B. Vaginal myomectomy
    C. Abdominal myomectomy
    D. Drugs
    E. Reassure

Ans. The key is C. Abdominal myomectomy. [Subserosal fibroid is not suitable to treat through vaginal route. Abdominal myomectomy can deal with both subserosal and submural fibroid].

142. A 32-year-old presents with heavy blood loss. US (ultrasound): uterine thickness>14mm. What is the best possible management for her?

A. COCP
B. UAE
C. Hysteroscopy myomectomy
D. Abdominal myomectomy
E. Endometrial ablation

Ans. The key is B. UAE. [Either low-dose combination hormonal contraceptive treatment or progestin therapy is generally effective in women aged 19-39 years. In UK COCP is not recommended, so UAE is to choose from given options].

143. A 30-year-old woman on OCP (oral contraceptive pill) presents with dilated tortuous veins crossing her abdomen to join the tributaries to SVC. What is the single most likely cause?

A. Intra-abdominal malignancy
B. Ovarian cyst
C. Fibroids
D. Ascites
E. DVT

Ans. The key is E. DVT. [IVCT (inferior venacaval thrombosis) is well known to occur secondary to DVT leading to dilated tortuous veins crossing the abdomen to join the tributaries to SVC].

144. A 25-year-old primigravida of 8 weeks GA (gestational age) presents with severe lower abdominal pain, vaginal bleeding and passage of clots. The internal os is open. What is the most likely diagnosis?

A. Appendicitis
B. Placental abruption
C. Ectopic pregnancy
D. Abortion

Ans. The key is abortion. [Up to 24 weeks termination of pregnancy is abortion].

145. During antenatal visits, the following tests are routinely offered to all pregnant mothers apart from HIV and Hepatitis B?

A. Rubella and syphilis
B. Syphilis and toxoplasmosis
C. Hep C & thalassemia
D. CMV and rubella
E. Sickle cell anemia and Hep

Ans. The key is A. Rubella and syphilis.

146. A pregnant lady at her 39 weeks GA (gestational age) presents with eclampsia. Soon after her arrival in the labour suit, IV MgSO4 and IV hydralazine has been prescribed. The patient then develops another fit in the hospital and maintenance dose of MgSO4 has been started. What is your next step in management?

A. Mg SO4 bolus
B. Delivery of baby
C. MgSO4 loading dose
D. Diazepam

Ans. The key is A. MgSO4 bolus.

147. A 19-year-old female diagnosed with trichomonas vaginalis. LMP (last menstrual period) was 10 days ago. What is the best antibiotic treatment?
A. Erythromycin
B. Vancomycin
C. Metronidazole
D. Penicillin
E. Clarithromycin
F. Doxycycline
G. Fluconazole
H. Clotrimazole

Ans. The key is C. Metronidazole.

148. A 28-year-old woman comes with sudden onset vomiting and pain per abdomen. Examination: mobile swelling in the right iliac fossa. What is the most probable diagnosis?
A. Ectopic pregnancy
B. Tubo-ovarian abscess
C. Acute appendicitis
D. Ovarian torsion
E. Diverticulitis

Ans. The key is D. Ovarian torsion. [As there is no history of amenorrhea ectopic pregnancy is less likely. So dx is possible ovarian torsion].

149. A 32-year-old woman with previous history of PID (pelvic inflammatory disease) now presents with severe abdominal pain. Her LMP (last menstrual period) was 8 weeks ago. What is the most probable diagnosis?
A. Ectopic pregnancy
B. Ovarian torsion
C. Hematometrium
D. Chronic PID
E. Cholecystitis

Ans. The key is A. Ectopic pregnancy. [PID is a risk factor for ectopic pregnancy].

150. A 25-year-old who is 38 weeks pregnant presents to the labour ward with a history of fewer fetal movements than usual during the evening. She also says that abdominal contractions are coming every few minutes and she is having a blood stained show per vagina for the last few minutes. Examination: cervix is fully affaced, 9cm dilated, cephalic presentation and station is +1. Choose the single most likely diagnosis?

A. APH
B. Concealed hemorrhage
C. Labour
D. IUFD
E. IUGR

Ans. The key is C. Labour. [Abdominal contractions coming every few minutes, having blood stained show per vagina, fully effaced cervix with dilatation of 9 cm, cephalic presentation and station +1 suggests that the patient is in labour].

151. A young lady with cervical ectropion bleeds on touch. What is the most appropriate next investigation?
A. Transvaginal US
B. Cervical smear
C. Punch biopsy
D. Serum estradiol
E. Colposcopy

Ans. The key is E. colposcopy.[Screening test cervical smear is only done in scheduled time and not in on demand basis. Also smear test is started at the age of 25 years. So if it is scheduled now then it can be the option otherwise Colposcopy should be done].

152. A 35-year-old woman who usually has 4 days mid-cycle bleeding, had her period 10 days ago. She has now presented with spots of blood. Her smear was normal 6 months ago. Examination: cervical ectropion which doesn't bleed on touch. What would you do?
A. Cervical smear
B. Endocervical swab
C. US guided biopsy
D. Laparotomy
E. Transvaginal US
F. Punch biopsy
G. Serum estradiol
H. Colposcopy

Ans. The key is B. Endocervical swab. [Infection is a recognized cause of intermenstrual bleeding and it should be ruled out doing endocervical swab first].

153. A young woman who is a marathon runner comes with secondary amenorrhea. Investigation: normal LH, FSH and estradiol, prolactin600. What is the most likely diagnosis?
A. Hypothalamic amenorrhea
B. Pregnancy
C. PCOS
D. Prolactinoma
E. Anorexia

Ans. The key is D. Prolactinoma.

154. A 34-year-old pregnant woman with 38 weeks of GA (gestational age) is in labor. She had a long 1st stage and troublesome 2nd stage, has delivered a baby. After her placenta was delivered she had a convulsion. What is the most probable management?

A. MgSO4 IV
B. Diazepam IV
C. IV fluid
D. Hydralazine IV
E. Anti-epileptic

Ans. The key is A. MgSO4 IV. [Eclampsia, treatment is with IV MgSO4].

155. A 23-year-old woman presents with offensive vaginal discharge. Vaginal pH 4.5. What is the most likely organism?

A. Gardenella
B. Trichomonas
C. Candida
D. Mycoplasma

Ans. The key is A. Gardenella.

156. A girl with sickle cell anemia has painful bleeding and vaso-occlusive crisis during her periods. What is the best possible management for this patient?

A. COCP
B. Tranexamic acid
C. Copper IUS
D. UAE
E. Depot provera

Ans. The key is E. Depot provera. [Hormone and barrier methods are all acceptable choices but intrauterine devices are not recommended, as they may be associated with uterine bleeding and infection.

Depot contraceptive (Depo-Provera) is safe and has been found to improve the blood picture and reduce pain crises].

157. An 18-year-old girl has menorrhagia and dysmenorrhea and requires contraception. What drug will you give her?

A. COCP
B. Mirena coil
C. Copper T
D. UAE
E. Depo provera

Ans. The key is A. COCP.

158. An obese woman with history of migraine presented with heavy bleeding during menstruation which is painful and needs contraception too. What is the best possible management for this patient?

A. COCP
B. Mirena coil
C. Copper T
D. UAE
E. Depo provera

Ans. The key is B. Mirena coil. [In migraine COCP should be avoided].

159. A 43-year-old woman has suffered with heavy periods for many years and has tried many medical treatment without success. She is constantly flooding and at times can't leave her house due to heavy bleeding. She has completed her family of 5 children and her last blood test showed Hgb=8.9g/dl. She feels that she can't cope with the bleeding anymore and her husband is asking for a treatment that can guarantee success. What is the most appropriate management to improve menorrhagia in this patient?

A. Endometrial ablation
B. Hysterectomy
C. Hysteroscopic/Laser resection of fibroids
D. Myomectomy
E. UAE

Ans. The key is B. Hysterectomy. [As family is complete hysterectomy is the best option to stop bleeding and it also helps not to get endometrial carcinoma].

160. A 48-year-old nulliparous woman feels tired all the time. Her periods are regular but have always lasted for at least 10 days. Choose the single most appropriate intial investigation?

A. High vaginal swab
B. Serum Hgb conc
C. TFT
D. None
E. Abdominal US

Ans. The key is B. Serum Hb conc. [Feeling tired all the time and prolonged period suggest anemia. So serum Hb should be done initially].

161. A woman is admitted to the hospital for elective abdominal hysterectomy. 2 months ago she was diagnosed with DVT and pulmonary embolism and was started on warfarin. What is the most appropriate preoperative measure you will take on this occasion?

A. Continue warfarin
B. Stop warfarin
C. Stop warfarin and start heparin

D. Increase warfarin dose e. Add heparin

Ans. The key is C. Stop warfarin and start heparin.

162. A 37-year-old woman had an elective LSCS (lower segment cesarean section) 1day ago. You are called to see her as she becomes SOB (short of breath) with left sided chest pain and a cough. She has had 3 children, 2 born by LSCS. Examination: she has reduced air entry at left lung base. Her observations include saturation 92% on air, BP 105/84mmHg, pulse 120bpm, temperature 37.2C. Choose among the options which C-section complications has she developed?

A. Aspiration pneumonia
B. Aspiration pneumonitis
C. Spontaneous pneumothorax
D. Pulmonary embolism
E. DVT

Ans. The key is D. Pulmonary embolism. [Absence of wheeze and near normal temperature makes aspiration as unlikely diagnosis and favours the diagnosis of pulmonary embolism].

163. A 32-year-old woman of 38 weeks GA (gestational age) attends the antenatal day unit with pain in the suprapubic area that radiates to the upper thighs and perineum. It is worse on walking. Her urine dipstick showed a trace of protein but no white cells, nitrates or blood. What's the most likely diagnosis?

A. Braxton hicks contractions
B. Round ligament stretching
C. Symphasis pubis dysfunction
D. Labor
E. Complicated femoral hernia

Ans. The key is C. Symphysis pubis dysfunction.

[Symptoms can include:

pain over the pubic bone at the front in the centre

pain across one or both sides of lower back

pain in the area between vagina and anus (perineum)

Pain can also radiate to thighs.

Cause: stiffness of pelvic joints or the joints moving unevenly at either the back or front of pelvis during pregnancy. Physiotherapy is helpful]. [Ref: NHS]

164. A 30-year-old woman, G2P1 (gravida2, para1) at 37 weeks gestation mentions that her 3-year-old son has just developed chickenpox. She is not certain whether she has had the disease herself. Which is the next step in management?

A. Administration of varicella-zoster immune globulin IM
B. Measurement of varicella IgM level
C. Acyclovir tablets orally
D. Measurement of varicella IgG level

Ans. The key is D. Measurement of varicella IgG level. [If previous infection is doubtful do varicella IgG level].

165. A 24-year-old primigravida presents to the emergency department with a history of 8-weeks amenorrhoea followed by heavy vaginal bleeding and severe, crampy abdominal pain. Examination: HR 110/min and BP 120/80mmHg. The uterus is bulky. The cervix is dilated and there is active bleeding from the cervical os, but no tissue has been expelled. Which of the following is the most likely diagnosis?
A. Inevitable abortion
B. Threatened Abortion
C. Incomplete abortion
D. Missed Abortion

Ans. The key is A. Inevitable abortion. [when os is closed threatened and when os is opened inevitable abortion (No tissue has been expelled)].

166. A 31-year-old woman, G5P4 (gravida5, para4), who has amenorrhoea for 12 weeks and a positive pregnancy test presents to the emergency department with vaginal bleeding. Symphysial-fundal height measurement corresponds to 22 weeks gestation. Ultrasound examination reveals bilateral cystic masses. No fetal parts are seen during the examination. The cervix is closed. Which is the most likely diagnosis?
A. Tubal pregnancy
B. Endometriosis
C. Hydatidiform mole
D. Threatened abortion

Ans. The key is C. Hydatidiform mole. [In molar pregnancy uterus is more enlarged than gestational age and on US no fetal part but cystic masses are seen].

167. A married 25-year-old woman presents with 6 hours history of abdominal pain located in the LIF. The pain is persistent, of increasing intensity and not radiating first experienced while she was lying down. She feels giddy when she tries to stand erect. The last menstrual period was 6 weeks ago. The radial pulse=130/min and BP=80/40 mmHg. Pelvic US shows free intra-peritoneal fluid. What is the most appropriate next step in management?
A. Immediate laparoscopy.
B. Immediate laparotomy.
C. Pregnancy test (urine or serum).
D. Observation for 24 hours in the ICU

Ans. The key is B. Immediate laparotomy. [As the patient is in shock it is ruptured ectopic pregnancy. So the next step is immediate laparotomy].

168. A 32-year-old woman of 40 weeks gestation attends the antenatal day unit with sudden onset epigastric pain with nausea and vomiting. She is clinically jaundiced. Her biochemistry results show a raised bilirubin, abnormal liver enzymes, high uric acid and hypoglycemia. What's the most likely diagnosis?

A. Acute fatty liver of pregnancy
B. Obstetric cholestasis
C. Cholecystitis
D. HELLP syndrome
E. Acute hepatitis

Ans. The key is A. Acute Fatty Liver of Pregnancy. [When jaundice is present in pregnancy, AFLP should be high on the differential. Pain, nausea, vomiting, jaundice, fever with elevated liver enzymes and bilirubin are indicative of AFLP. Also can have elevated INR, TLC and hypoglycaemia].

169. A 29-year-old woman presents to her GP with troublesome heavy periods. The medical treatment that she has tried have made little difference. She is known to have large uterine intramural fibroids. You confirm that she is currently trying for more children. Select the most appropriate management for menorrhagia in this patient?

A. Danazol
B. Endometrial ablation
C. Hysterectomy
D. Hysteroscopic resection of fibroids
E. Myomectomy

Ans. E. Myomectomy. [Chance of subsequent pregnancies is better after myomectomy].

170. A 30-year-old woman had an IUCD inserted 8-9 months ago. Now on routine follow up the thread is missing. Uterine US showed no IUCD in the uterus. What is the best management?

A. Laparoscopy
B. Pelvic CT
C. Laparotomy
D. Pelvic XR

Ans. The key is D. Pelvic XR. [Ultrasound should be arranged to locate the device. If ultrasound does not locate the device and there is no definite history of expulsion then abdominal X-ray should be performed to look for an extrauterine device].

171. A 28-year-old woman who has had a previous pulmonary embolism in pregnancy wishes to discuss contraception. She has menorrhagia but is otherwise well. What is the SINGLE most suitable contraceptive method for this patient?

A. COCP
B. Copper IUCD
C. Levonorgestrel intra-uterine system
D. Progestogen implant
E. POP

Ans. The key is C. Levonorgestrel Intra-Uterine System. [The woman has a history of thromboembolic disease, which essentially contraindicates COCP. LNG-IUS (Mirena) is the hormone releasing device that is most suitable in this patient with thrombophilia and menorrhagia.

172. A 27-year-old woman who takes the COCP has had painless vaginal spotting and discharge for 3 days. Her last menstrual period, which lasted four days, finished 10 days ago. Her last cervical smear two years ago was normal. Abdominal and vaginal examinations are normal apart from a mild ectropion with contact bleeding. What is the SINGLE most appropriate initial investigation?

A. Cervical smear
B. Colposcopy
C. Endocervical swab
D. Endometrial biopsy
E. Pelvic US

Ans. The key is C. Endocervical swab. [As her cervical smear and examination of abdomen and vagina are normal, next we have to exclude STD for which Endocervical swab should be taken].

173. A 19-year-old woman has had progressive bilateral iliac fossa pain and dyspareunia for 3days. She has an offensive vaginal discharge and feels unwell and feverish. Her temp=39C. An initial antimicrobial regimen is commenced. What SINGLE set of organisms are the most appropriate for the antimicrobial regimen to cover?

A. Neisseria gonorrhoeae and Candida albicans
B. Neisseria gonorrhoeae and Candida albicans and Gardnerellavaginalia
C. Neisseria gonorrhoeae and Chlamydia trachomatis
D. Neisseria gonorrhoeae and Chlamydia trachomatis and Candida albicans
E. Neisseria gonorrhoeae and Chlamydia trachomatis and Gardnerellavaginalis

Ans. The key is C. Neisseria gonorrhoeae and Chlamydia trachomatis [GMC sample question].

174. A primigravida in the 17th week of her symptomless gestation is found, on US, to have evidence of placental tissue covering the cervical os. By the end of her pregnancy she is likely to develop?

A. Placental migration
B. Uterine myoma
C. Uterine rupture
D. Choriocarcinoma
E. Chorangioma
F. Vasa previa
G. Subplacental abruption placenta
H. Subchorionic abruption placenta
I. Placenta accrete
J. Placenta previa

Ans. The key is A. Placental migration. [In 90% of pregnancies, an initial low lying placenta will be pulled upwards by the growing uterus and assume a normal position in the upper segment. This phenomenon is referred to as Migration].

175. An elderly lady with COPD has chronic SOB. She is listed for cataract extraction. What is the anaesthetic of choice?

A. Facial nerve block
B. Bupivacaine infiltration of the peri-orbital skin
C. IV midazolam
D. Peribulbar acupuncture
E. Peribulbar lignocaine infiltration
F. Topical xylocaine
G. IV alfentanil
H. Epidural anesthesia
I. General anesthesia
J. Retrobulbar xylocaine Inj

Ans. The key is E. Peribulbar lignocaine. [The most used mode of anaesthesia in ophthalmic feild is peribulbar lignocaine].

176. A pregnant woman in an early stage of labour expresses the wish to have pain relief during labour. The anesthetist describes that if the patient wishes he can use medication as a local anesthetic to block the pain sensations of labour. Into which space should the local anaesthetic be normally injected?

A. Anterior pararenal space
B. Aryepiglottic space
C. Vestibule space
D. Epidural space
E. Sub-arachnoid space
F. Space of Disse
G. Middle ear
H. Posterior pararenal space
I. Supraglottic space
J. Lesser sac

Ans. The key is D. Epidural space.

177. A 31-year-old woman is anxious about slight per vaginal bleeding. She is 22 weeks pregnant and had similar complaints 2 years ago when she was on the pill. What is the single most appropriate next investigation?

A. Cord blood flow studies (Doppler)
B. Central venous pressure
C. Cardiotocography

D. Maternal ECG
E. Ultrasound localization of placenta

Ans. The key is E. Ultrasound localization of placenta. [Low set placenta is drawn up with age of pregnancy causing slight per vaginal bleeding, which can be detected by ultrasound scan].

178. A 20-year-old married woman presents to A&E with acute onset of lower abdominal pain.

Her last menstrual period was 6 weeks earlier. She has pain radiating to the left shoulder. What is the single most likely diagnosis?

A. Ectopic pregnancy
B. Mesenteric thrombosis
C. Perforated peptic ulcer
D. Renal colic
E. Salpingitis

Ans. The key is A. Ectopic pregnancy. [Often, the first warning signs of an ectopic pregnancy are light vaginal bleeding and pelvic pain. If blood leaks from the fallopian tube, patient may feel shoulder pain or an urge to have a bowel movement. Patients specific symptoms depend on where the blood collects and which nerves are irritated].

179. A 22-year-old woman who has had 2 terminations of pregnancy, reports that she is

pregnant again. She has noted a small amount of watery brown discharge and is tender in right iliac fossa. What is the single most likely diagnosis?

A. Appendicitis
B. Bacterial vaginosis
C. Crohn's disease
D. Ectopic pregnancy
E. Endometriosis

Ans. The key is D. Ectopic pregnancy. [Prior spontaneous abortions increase the risk of ectopic pregnancy. Also watery brown discharge and right iliac fossa tenderness suggests bleeding ectopic pregnancy].

180. The time span over which a percentage of women with untreated CIN will develop cancer.

Choose the single most likely time or time-interval.

A. 3-6 months
B. 12 months
C. 24-36 months

D. 3-10 years
E. 30 years

Ans. The key is E. 30 yrs.

181. The age at which the peak incidence of cervical carcinoma develops. Choose the single most likely time or time-interval.

A. 30 years
B. 45 years
C. 50 years
D. 55 years
E. 65 years

Ans. The key is E. 65 years.

182. The interval for cervical smears to be taken in a woman treated I year previously for CIN Choose the single most likely time or time-interval.

A. 3-6 months
B. 12 months
C. 24-36 months
D. 3-10 years
E. 30 years

Ans. The key is B. 12 months.

183. The timescale within which the 50% of the patients with recurrent disease will present, following treatment for stage IB cervical cancer. Choose the single most likely time or time-interval.

A. 12 months
B. 24-36 months
C. 3-10 yrs
D. 30 years
E. 45 years

Ans. The key is D. 30 years.

184. A 24-years-old gravida 4, para 3, presents with a painless unprovoked vaginal bleed of approximately 50 ml at 32 weeks gestation. She is generally well, but worried. What is the single most appropriate next investigation?

A. Ultrasound localization of placenta

B. Hemoglobin estimation
C. Kleihauser test
D. Pulse oximetry
E. Rhesus status

Ans. A. Ultrasound localization of placenta. [Oxygen saturation by pulse oxymetry is one of the vital signs and not considered as lab. investigation. Given case is a case of APH and as history of active bleeding or ongoing bleeding is not given and as patient is stable and no uterine activity and tenderness we shall then assess fetal heart sound. If OK then ultrasound localizatuion of placenta is the next investigation. If there is concern about fetal heart sound CTG should be done. Now if there was active bleeding or uterine activity or tenderness next investigation would be haemoglobin concentration, rhesus status and if Rh negative Kleihauser test].

185. A 25-years-old nullipara presents at 26 weeks gestation with slight postcoital bleeding. Whatis the single most appropriate next investigation?

A. Kleihauser test
B. Pulse oximetry
C. Rhesus status
D. Speculum examination
E. Urinanalysis

Ans. The key is D. Speculum examination. [To exclude any local source of bleeding. A sterile speculum examination can be performed safely before ultrasonographic evaluation of placental localization, but a digital examination should be avoided until placenta previa is excluded by ultrasonography].

186. Following recurrent antepartum hemorrhage, investigation shows the fetus to be small for dates at 32 weeks. Conservative management is preferred. A 19-week fetal anomaly ultrasound scan confirmed normal placental localization. What is the single most appropriate next investigation?

A. Ultrasound localization of placenta
B. Hemoglobin estimation
C. Kleihauser test
D. Pulse oximetry
E. Rhesus status

Ans. The key is E. Rhesus status.

187. A woman, whose previous pregnancy was complicated by iso-immunization, has vaginal spotting at 36 weeks in an otherwise normal pregnancy. What is the single most appropriate next investigation?

A. Cardiotocography
B. Maternal ECG

C. Ultrasound localization of placenta
D. Hemoglobin estimation
E. Kleihauser test

Ans. The key is C. Ultrasound localization of placenta.

188. A married 52-years-old woman who has a family history of breast cancer has been experiencing mild discomfort for a few hours following intercourse for last month. She is worried about using hormones. What is the single most likely management plan?

A. Psychological support
B. Referral to psychiatrist
C. Regular exercise
D. Vaginal lubricant
E. Vaginal estrogens

Ans. The key is D. Vaginal lubricant.

189. A 45-years-old woman who has had a total abdominal hysterectomy and bilateral salpingo-oopherectomy for fibroids and menorrhagia complains of hot flushes, night sweats and mood swings. She has no other medical problems. What is the single most likely management plan?

A. Mineral supplements
B. Oestrogen only HRT
C. Psychological support
D. Referral to psychiatrist
E. Regular exercise

Ans. The key is B. Oestrogen only HRT. [In case of hysterectomy unopposed estrogen (estrogen without progesterone) that is oestrogen only HRT can be given].

190. A 41-years-old woman complains of being unable to conceive for 2 years despite having regularunprotected sex. She complains of sweating all the time, frequent defecation and says thisexplains her loss in weight in recent weeks. She denied starving herself and says she has a very good appetite. HbAlc levels are 5%. What is the single most likely diagnosis?

A. Hypopituitarism
B. Hyperthyroidism
C. Hypothyroidism
D. Pulmonary tuberculosis
E. Possible malignancy

Ans. The key is B. Hyperthyroidism. [Thyroid disease can cause female infertility by resulting in anovulation (lack of ovulation) and menstrual irregularity, luteal phase defect, and hyperprolactinemia].

191. A28-years-old woman complains of infertility for 3 years. She has a low libido, and has put ona lot of weight. Her breasts are discharging. What is the single most likely diagnosis?

A. Hyperprolactinemia
B. Hypopituitarism
C. Hyperthyroidism
D. Hypothyroidism
E. Pulmonary tuberculosis

Ans. The key is D. Hypothyroidism. [Hypothyroidism causes significant hyperprolactinemia which can lead to infertility, loss of libido and discharging breast. Hypothyroidism is a cause of weight gain].

192. A 38-years-old complains of infertility and is otherwise healthy. She had been on Haloperidol treatment for a schizophreniform illness for last 6 years. She has a healthy 3 years old daughter.What is the single most likely diagnosis?

A. Hyperprolactinemia
B. Hypopituitarism
C. Hyperthyroidism
D. Hypothyroidism
E. Pulmonary tuberculosis

Ans. The key is A. Hyperprolactinemia. [Antipsychotic induced hyperprolactinemia. In women, hyperprolactinaemia inhibits gonadotrophin secretion (follicle-stimulating hormone (FSH) and luteinising hormone (LH)), leading to menstrual dysfunction, infertility due to anovulation. It also may cause galactorrhoea].

193. A 31-years-old woman complains of abdominal pain, which seems to increase during her periods. Over the last year she has noticed difficulty in breathing and chest pain associated with occasional haemoptysis, following her periods. Her mother is asthmatic and she has eczema. She has been unable to conceive. On examination she is found to have an enlarged and tender uterus. Her BMI is just 20. What is the single most likely diagnosis?

A. Polycystic ovary disease
B. Endometriosis
C. Adenomyosis
D. Chronic salpingitis
E. Diabetes mellitus

Ans. The key is B. Endometriosis. [Ectopic endometrial tissue is endometriosis. Commonly there is abdominal involvement which causes symptom like abdominal pain and dyspareunia, and infertility. When in lung tissue may produce dyspnea, hemoptyisis particularly during period. One of the main complications of endometriosis is difficulty getting pregnant or not being able to get pregnant at all].

194. A21-years-old woman presents as an emergency with a 4 hours history of abdominal pain andbright red vaginal blood loss. She has not had a men- strual period for 9 weeks and had apositive home pregnancy test I week ago. On vaginal examination the uterus is tender andbulky. The cervical os is open. What is the single most likely diagnosis?

A. Inevitable miscarriage
B. Irritable bowel syndrome
C. Missed abortion
D. Normal pregnancy
E. Pelvic inflammatory disease

Ans. The key is A. Inevitable miscarriage. [Inevitable miscarriage usually presents with heavy bleeding with clots and pain. The cervical os is open. The pregnancy will not continue and will proceed to incomplete or complete miscarriage].

195. A 16-years-old woman presents with a sudden onset of severe right iliac fossa pain. On vaginal ultrasound examination a 6cm diameter echogenic cystic mass is seen inright fornix. What is the single most likely diagnosis?

Pelvic inflammatory disease
Renal colic
Septic abortion
Threatened miscarriage
Torsion of ovarian cyst

Ans. The key is E. Torsion of ovarian cyst. [When the egg is released during ovulation, the sac that held the egg should also disappear. If the egg does not leave the sac in the ovary or if the sac closes before dissolving, it can fill with fluid and form a cyst. The cysts shrink or dissolve after ovulation. Sometimes a cyst can get large and burst or rupture. The larger the cyst, the more likely that ovarian torsion will occur. With ovarian torsion, the blood supply to the ovary can be blocked and permanently hurt the ovary].

196. An 18-years-old student due to take her examinations, reports that she missed her periodand that a pregnancy test is negative. She has worsening abdominal pain, which has beentroublesome for 3 months. She is otherwise well. What is the single most likely diagnosis?

A. Irritable bowel syndrome
B. Missed abortion
C. Normal pregnancy

D. Pelvic inflammatory disease
E. Renal colic

Ans. The key is C. Normal pregnancy. [Missed abortion is painless. It is possible to get false negative pregnancy test].

197. A 27-year-old who conscientiously uses OC pill, has experienced intermittent breakthroughvaginal bleeding and malodorous discharge for several weeks. When examined she has painover the lower abdomen, worse on the left. Her temperature is 39C and her white cell count is elevated. What is the single most likely diagnosis?

A. Pelvic inflammatory disease
B. Renal colic
C. Septic abortion
D. Threatened miscarriage
E. Torsion of ovarian cyst

Ans. The key is A. Pelvic inflammatory disease. [The current outpatient treatment recommendation is ceftriaxone 500 mg as a single intramuscular (IM) dose, followed by doxycycline 100 mg orally twice daily and metronidazole 400 mg twice daily for 14 days. An alternative regime is oral ofloxacin 400 mg twice daily and oral metronidazole 400 mg twice daily for 14 days. This is not recommended if the woman is at high risk of gonococcal PID because of increasing quinolone resistance of gonorrhoea. Levofloxacin may be used as a once-daily, convenient alternative to ofloxacin.

The current treatment recommendation for severely ill (pyrexia above 38°C, clinical signs of tubo-ovarian abscess, signs of pelvic peritonitis or pregnancy) patients is:

Initial treatment is with doxycycline, single-dose IV ceftriaxone and IV metronidazole, then change to oral doxycycline and metronidazole to complete 14 days of treatment.

There is no evidence-based recommendation for treatment in pregnancy, but an empirical regimen might include IM ceftriaxone plus oral or IV erythromycin, with the possible addition of oral or IV metronidazole 500 mg three times daily in clinically severe disease. Any risk of this regimen is justified on the basis of need to provide therapy and low risk to the fetus.

IV therapy should be continued for 24 hours after signs of clinical improvement].

198. A 34-year-old gravida 4, para 3 + I presents at 20 weeks with a grossly distended abdomen. She is dyspnoeic and complains of general abdominal discomfort. Abdominal USG shows the deepest pool of amniotic fluid to be I0 cm and a normal fetus. What is the single most likely management plan?

A. Induce labour& deliver immediatelyhypotensive
B. No treatment, observation only
C. Abdominal amniocentesis
D. Give diazepam PR
E. 4-5 g IV MgS04 +hypotensive

Ans. The key is C. Abdominal amniocentasis. [The given picture is of severe polyhydramnios supported by deepest pool of amniotic fluid to be 10 cm. (deepest pool >8 cm is polyhydramnios and if <2 cm it is oligohydramnios). Treatment at this stage is abdominal amniocentasis].

199. A 24-year-old primi gravida presents at 36 weeks with abdominal discomfort and on examination her abdomen is found to be larger for dates. She is dyspnoeic and complains of indigestion and claims the abdomen has swollen to this size within a week. USG shows the fetus to be normal. What is the single most likely management plan?

A. Give 500 mg stat Acetazolamide
B. Do emergency cardiotocography
C. Propanolol immediately
D. Induce labour& deliver immediatelyhypotensive
E. No treatment, observation only

Ans. The key is B. Do emergency cardiotocography. [Polyhydramnios. Usual recommendation is deliver at 37 weeks and if needed even few weeks earlier].

200. A 40-year-old lady 38 weeks pregnant is brought to A&E fitting. Prior to this she had complained of epigastric pain. Her BP is found to be 200/110 mmHg. What is the single most likely management plan?

A. Induce labour& deliver immediatelyhypotensive
B. No treatment, observation only
C. Abdominal amniocentesis
D. Give diazepam PR
E. 4-5 g IV MgS04 +hypotensive

Ans. The key is E. 4-5 g IV MgSO4 + hypotensive. [Case of Eclampsia. Should be treated with MgSO4 and hypotensive].

201. A 72-year-old woman has experienced of micturition intermittently for the last few months.Midstream urine cultures have been persistently negative. She is well otherwise, but wouldlike her symptoms to be resolved. What is the single most likely management plan?

A. Clonidine
B. Combined HRT
C. Hypnotic preparations
D. Mineral supplements
E. Oestrogen only HRT

Ans. The key is B. Combined HRT. [Menopause can frequently produce UTI like symptoms though there is no infectiuon. For post menopausal symptoms combined HRT is treatment of choice for those who have uterus].

202. A 34-year-old woman presents with malodorous discharge. A wet film smear shows ‘cluecells’. What is the single most likely diagnosis?

A. Bacterial vaginosis
B. Herpes simplex vims
C. Syphilis
D. Chlamydial pelvic infection
E. Gonorrhea

Ans. The key is A. Bacterial vaginosis. [In a wet film smear, a sample of the vaginal discharge is placed on a glass slide and mixed with a salt solution. A wet prep is considered positive when more than 20% of the epithelial cells present in the microscopic field are clue cells. Clue cells are seen in bacterial vaginosis].

203. A 28-year-old woman presents with a white curdly discharge from her vagina. Wet smearshows mycelium growth. What is the single most likely diagnosis?

A. Gonorrhea
B. Lymphogranuloma inguinale
C. Candidiasis
D. Trichomoniasis
E. Scabies

Ans. The key is C. Candidiasis. [Candidiasis is a fungal infection caused by a yeast (a type of fungus) called candida. Candida causes following symptoms in case of vaginal candidiasis: pruritus vulvae, vulval soreness, white ‘cheessy’ discharge, dyspareunia and dysuria. Treatment: Prescribe either an intravaginal antifungal, such as clotrimazole or miconazole pessaries, or an oral antifungal, such as fluconazole or itraconazole. If there are vulval symptoms, consider a topical imidazole as well (eg, clotrimazole or miconazole). Combination packs of pessary/vaginal cream and topical cream are available].

204. A 28-year-old woman presents with lower abdominal pain, an offensive vaginal dischargeand deep dysparenuia. She has no gonorrhea. What is the single most likely diagnosis?

A. Herpes simplex virus
B. Syphilis
C. Chlamydial pelvic infection
D. Gonorrhea
E. Lymphogranuloma inguinale

Ans. The key is C. Chlamydial pelvic infection.

205. A 31-year-old woman complains of a chronic non-foul smelling discharge. She bleeds aftersexual intercourse. What is the single most likely diagnosis?

A. Candidiasis

B. Trichomoniasis
C. Scabies
D. Cervical erosion
E. Endometrial carcinoma

Ans. The key is D. Cervical erosion. [Cervical erosion can cause odorless vaginal discharge with post coital bleeding].

206. A 52-year-old woman had had a history of offensive vaginal discharge and intermittent vaginal bleeding over the past 3 months. Her last cervical smear was taken 4 years ago. What is the single most relevant next examination?

A. Cervical inspection
B. Cervical smear
C. Endocervical swab
D. Endometrial sampling
E. Full blood count

Ans. The key is C. Endocervical swab. [Likely diagnosis is PID. Though cervical smear is overdue it is not the NEXT investigation as cervical screening doesn't include tests for chlamydia or other sexually transmitted infections (STIs), such as gonorrhea].

207. A 23-year-old has a new sexual partner. She has been on the combined OC pill for last 6 years. She presents with a 2-month history of breakthrough bleeding. What is the single most relevent next examination?

A. Endocervical swab
B. Endometrial sampling
C. Full blood count
D. Gonadotropin levels
E. Hysteroscopy

Ans. The key is A. Endocervical swab.

208. A 47-year-old woman who has breast cancer and is on tamoxifen has 2 episodes of brightred bleeding. Her last period was when she started tamoxifen 2 years ago. What is the singlenmost relevant next examination?

A. Cervical smear
B. Endocervical swab
C. Endometrial sampling
D. Full blood count
E. Gonadotropin levels

Ans. The key is C. Endometrial sampling. [Tamoxifan can cause endometrial carcinoma].

209. A 26-year-old woman with a 5-week history of amenorrhoea presents to A&E with vaginalbleeding. An ultrasound scan report “empty uterus”. What is the single most relevant nextexamination?

A. Full blood count
B. Gonadotropin levels
C. Hysteroscopy
D. Kleihauser test
E. Pregnancy test

Ans. The key is B. Gonadotropin levels. [Probable ectopic pregnancy].

210. A 49-year-old woman presents with a 9-month history of prolonged slightly irregular periods. Clinical examination shows a normal size uterus with no adnexal masses. What is the single most relevant next examination?

A. Endocervical swab
B. Endometrial sampling
C. Full blood count
D. Gonadotropin levels
E. Hysteroscopy

Ans. The key is B. Endometrial sampling. [If it was infection 9 months history would present with its complications which are not present here. Also pattern of menstruation warns us to exclude endometrial cancer].

211. A56-year-old nulliparous woman with a BMI of 37 has a four month history of blood stained discharge. She is otherwise normal. What is the single most likely diagnosis?
A. AtrophicVaginitis
B. BacterialVaginosis
C. EndometrialCarcinoma
D. Candidiasis
E. Chlamydia

Ans. The key is C. Endometrial Carcinoma. [Post menopausalblood stained discharge is highly suggestive of endometrial carcinoma].

212. A 23 year old woman has been taking the combined oral contraceptive pill for 4 years. She has a troublesome clear, sticky discharge with no odour or itching. What is the single most likely diagnosis?
A. Cervicalcancer
B. HIVInfection
C. Ectropion

D. Gonorrhea
E. Chlamydia

Ans. The key is C. Ectropion. [Oral contraceptive is a well known cause of cervical ectropion. There may be increase in vaginal discharge which is otherwise asymptomatic (no redness or plaque, no itching, no odour or other symptoms) in cervical ectropion].

213. A 25-year-old woman is 8 weeks pregnant. She has experienced a degree of vaginal bleeding and severe left sided abdominal pain. Her pulse rate is 100 beats/minute and her BP is 110/75 mmHg. There is marked cervical excitation on vaginal examination. What is the single most appropriate management?

A. Administration of anti-D
B. Bimanual vaginal examination
C. Blood transfusion
D. Colposcopy
E. Culdocentasis

Ans. The key is E. Culdocentasis. [In given case diagnostic laparoscopy should be the answer but as it is not in the options we should go for the most appropriate investigation from the given options which is E. Culdocentasis here. As patient is not in shock the diagnosis is not ruptured ectopic pregnancy yet but leaking ectopic pregnancy in which there occurs accumulation of blood in pouch of douglas which can be revealed by culdocentasis].

214. A 30-year-old woman has IUCD inserted 8-9 months ago. Now on routine follow-up the thread is missing. Uterine ultrasound shows no IUCD in the uterus. What is the best management?

A. Laparoscopy
B. Pelvic CT scan
C. Laparotomy
D. Pelvic X-ray
E. MRI

Ans. The Key is D. Pelvic X-ray. [Management of Lost Thread: Ultrasound should be arranged to locate the device. If ultrasound does not locate the device and there is no definite history of expulsion then abdominal X-ray should be performed to look for an extrauterine device. Expulsion should not otherwise be assumed. Hysteroscopy can be helpful if ultrasound is equivocal. Surgical retrieval of an extrauterine device is advised].

215. A pregnant patient who's Rh negative and has not has been previously sensitized delivers her first baby without complications. What would be the latest time to administer anti-sensitization?

A. 6 hours post partum
B. 24 hours post partum
C. 48 hours post partum
D. 72 hours post partum
E. 5 days post partum

Ans. The key is D. 72 hours post partum.

216. A 60-year-old woman present with post coital bleeding for the past 1 week. What is the most appropriate investigation?

A. Cervical smear
B. Cervical biopsy
C. Colposcopy
D. Endometrial sampling
E. Transvaginal Ultrasound

Ans. The key is C. Colposcopy. [Please note Red Flag Sign for Cancer (either cervical or endometrial) is AGE>35 yrs and persistence of post coital bleeding for more than 4 WEEKS!! So the important clincher here is duration and presenting case still is not supposed to be diagnosed as cancer!! Hence infection is most likely cause or atrophic vaginitis and from the given options C. Colposcopy is the likely correct option].

19. PEDIATRICS

1. A 6-month-old child presents with fever and cough. His mother has rushed him to the emergency departmen asking for help. Examination: temp=39C and the child is feeding poorly. What is the diagnosis?
   A. Bronchiolitis
   B. Asthma
   C. Bronchitis

Ans. The key is A. Bronchiolitis. [Management: 1. Oxygen inhalation 2. Nasogastric feeding. DON'T USE: i) bronchodilator ii) steroid iii) antibiotics routinely].

2. A 16-month-old child presents with drooling, sore throat and loss of voice. He has fever with a temp of 38.2C. What is your next step towards management?
   A. Direct pharyngoscopy
   B. Call ENT surgeon
   C. Call anesthesiologist
   D. IV fuilds
   E. Start antibiotics

Ans. The key is C. Call anesthesiologist. [This is a case of epiglottitis. In given case urgent intubation is needed to secure airway to prevent closure of airway. Call anesthesiologist as an expert to intubate].

3. A child presents with clean wound, but he has never been immunized as his parents were worried about it. There is no contraindication to immunization, what is the best management?

A. Full course of DTP
B. 1 single injection DT
C. 1 single injection DTP
D. Only Ig
E. Antibiotic

Ans. The key is A. Full course of DTP.

4. An 11-year-old boy is being checked by the diabetic specialist nurse. His HbA1c was high and he has been skipping meals recently. He has been unhappy at school. Which single member of the clinical team would you refer him to next?
   A. GP
   B. Pediatrician
   C. Dietician
   D. Clinical psychologist

Ans. The key is D. Clinical psychologist. [Skipping meals, unhappy at school these are psychological issues. So he should be referred to clinical psychologist].

5. A 2-year-old boy fell off his tricycle and hurt his arm. He got up to start crying, but before there was any sound, he went pale, unconscious and rigid. He recovered after 1-2 minutes but remained pale. After an hour he was back to normal. His mother says she was afraid he was going to die, and that he had a similar episode 3 months prior after falling down some steps. What single investigation is indicated?
   A. CT head
   B. EEG
   C. CBC
   D. None
   E. Skeletal survey

Ans. The key is D. None. [Diagnosis is breath-holding spells. Breath-holding spells are the occurrence of episodic apnea in children, possibly associated with loss of consciousness, and changes in postural tone. Breath-holding spells occur in approximately 5% of the population with equal distribution between males and females. They are most common in children between 6 and 18 months and usually not present after 5 years of age. They are unusual before 6 months of age. A positive family history can be elicited in 25% of cases.Breath-holding spells usually occur when a young child is angry, frustrated, in pain, or afraid].

6. A 5 months baby presents with recurrent vomiting. Mother noticed some of the vomitus is blood stained. Choose the single most likely investigation?
   A. Upper GI endoscopy
   B. Barium meal
   C. US (ultrasonography)
   D. Colonoscopy
   E. CT abdomen

Ans. The key is A. Upper GI endoscopy. [Probable diagnosis is infantile pyloric stenosis. Pyloric stenosis usually affects babies between 2 and 8 weeks of age, but can occur anytime from birth to 6 months. Slight hematemesis of either bright-red flecks or a coffee-ground appearance is sometimes observed. Preferred investigation is ultrasonography. If US can not establish the diagnosis we go for barium meal and if both are non-diagnostic we go for endoscopy. As the question wants “SINGLE” most likely investigation it means the definitive or gold standard investigation which is upper GI endoscopy].

7. A 4 weeks girl has been diagnosed of having breast milk jaundice. She is otherwise well. What is the single most appropriate management?
   A. Continue breastfeeding
   B. Exchange transfusion
   C. Increase fluid intake
   B. Phototherapy
   E. Stop breastfeeding

Ans. The key is A. Continue breast feeding. [If jaundice lasts past the first week of life in a breastfed baby who is otherwise healthy, the condition may be called "breast milk jaundice.” This is predominantly unconjugated hyperbilirubinaemia. Cause may be actors in a mother's milk that help a baby absorb bilirubin from the intestine].

8. A 12-year-old girl when playing in the garden accidentally stepped on a hive and was bitten several times. She has numerous wheals on her body and complains of severe itching. What is the single most appropriate management?
   A. Oral antihistamine
   B. IV antihistamine
   C. IM adrenaline
   D. Oral ciprofloxacin
   E. Reassurance

Ans. The key is A. Oral antihistamine. [Intravenous antihistamines are used as an adjunct to adrenaline in the emergency treatment of anaphylaxis and angioedema. Parenteral antihistamine is not recommended in less severe allergic reaction (other than anaphylaxis)].

Followings are the indications of adrenaline in anaphylaxis:

1. Horseness of voice
2. Wheeze
3. Shortness of breath
4. Shock
5. Stridor
6. Swelling of the tongue and cheek
7. Facial swelling].

9. A term baby born to a 30 year old woman of blood group A-ve develops severe jaundice within the first 24 hours of birth. What is the most likely diagnosis?

A. Hereditary spherocytosis

B. G6PD

C. ABO incompatibility

D. Rh incompatibility

E. Physiological jaundice

Ans. The key is D. Rh incompatibility. [Rh incompatibility is a condition that occurs during pregnancy if a woman has Rh-negative blood and her baby has Rh-positive blood].

10. A 4-year-old girl is found to have bounding pulse and continuous machinery murmur. What is the most probable diagnosis?

A. TOF (tetralogy of Fallot)

B. ASD (atrial septal defect)

C. VSD (ventricular septal defect)

D. PDA (patent ductus arteriosus)

E. CoA (coarctation of aorta)

Ans. The key is D. PDA. [Patent ductus arteriosus (PDA) is a medical condition in which the ductus arteriosus fails to close after birth: this allows a portion of oxygenated blood from the left heart to flow back to the lungs by flowing from the aorta, which has a higher pressure, to the pulmonary artery.Continuousmechinary murmur is well known feature of PDA. Other features are bounding pulse, widened pulse pressure, increased cardiac output, differential cyanosis (cyanosis of the lower extremities but not of the upper body].

11. A 12-year-old child with episodes of sudden bluish discoloration and brief loss of consciousness. Exam: clubbing, central cyanosis, systolic thrill with systolic ejection murmur in 2nd left ICS. What is the most probable diagnosis?

A. TOF (tetralogy of Fallot)

B. ASD (atrial septal defect)

C. VSD (ventricular septal defect)

D. PDA (patent ductus arteriosus)

E. CoA (co-arctation of aorta)

Ans. The key A. TOF. [TOF usually does not become symptomatic at birth or early infancy and given features (central cyanosis and clubbing with murmur of right ventricular outflow obstruction i.e. ejection

systolic murmur in 2nd left ICS) are well known features of TOF. Tetralogy of fallot = 1. VSD + 2. Overriding of the aorta + Right ventricular outflow tract obstruction + Right ventricular hypertrophy].

12. A 4-year-old child presents with pain of spontaneous onset in his knee of 2 days duration. He has developed mild fever in the 2nd day. He can walk but has a limp. Examination: painful restriction in the right hip. What is the most probable diagnosis?

A. Osteosarcoma

B. Septic arthritis

C. TB arthritis

D. Exostosis

E. Osteomyelitis

Ans. The key is B. Septic arthritis. [Points in favour of diagnosis: i) Pain in joints (knee and hip). In osteeomyelitis there is no joint pain but pain in other parts of bone like shaft. ii) Fever iii) Painful restricted movement of joint].

13. A 3-year-old child who looks wasted on examination has a history of diarrhea on and off. The mother describes the stool as bulky, frothy and difficult to flush. What is the single investigation most likely to lead to diagnosis?
A. Sweat chloride test
B. Anti-endomysial antibodies
C. LFT
D. US abdomen
E. TFT

Ans. The key is B. Anti-endomysial antibody. [The diagnosis is celiac disease. It is not cystic fibrosis as lung problem is most commonly seen in cystic fibrosis along with GI problem like indigestion].

14. A 6-year-old patient comes with easy bruising in different places when she falls. CBC: WBC 25, Hgb 10.9, Platelets 45. Her Paul bunnel test +ve. What is the most likely diagnosis?
A. Glandular fever
B. ITP
C. Trauma
D. NAI
E. Septicemia

Ans. The key is A. Glandular fever. [Suggestive lab. Values: WBC=25 (leucocytosis), Hgb 10.9 (usually patient is not anaemic), Platelets 45 (thrombocytopenia-leading to easy bruising), Positive Paul bunnel test].

15. A 5-year-old boy is referred to the hospital and seen with his father who is worried that he has been listless. He is not sure why his GP suggested he should come to the emergency

department and is keen to get some tablets and go home. Examination: tired and irritable, swelling around eyes. Renal biopsy: remarkable for podocyte fusion on electron microscopy. What is the most probable diagnosis?

A. NAI

B. Myelodysplastic disease

C. HSP

D. Membranous glomerulonephritis

E. Minimal change glomerulonephritis

Ans. The key is E. Minimal change glomerulonephritis. [Podocyte fusion on electron microscopy is diagnostic of minimal change glomerulonephritis].

16. A 4-year-old baby has generalized tonic-clonic seizure and fever of 39C. his mother informs you that this has happened 3-4 times before. What is the most likely diagnosis?

A. Febrile convulsion

B. Absence seizures

C. Epilepsy

D. Partial complex seizure

Ans: The key is A. Febrile convulsion. [Points in favour: seizers in presence of high fever. Same previous illness indicate seizers during fever which goes against epilepsy. Though usually febrile convulsion dosen't tend to recur but it can recur as well. Epilepsy has no relation to fever but is due to pathology in brain].

17. An 8 month infant presented with FTT (failure to thrive) and constipation. Examination: large tongue and history of prolonged neonatal jaundice. What is the most likely diagnosis?
    A. Downs syndrome
    B. Fragile X syndrome
    C. Praderwilli syndrome
    D. DiGeorge syndrome
    E. Congenital hypothyroidism

Ans.The key is E. Congenital hypothyroidism. [Congenital hypothyroidism (CH) is inadequate thyroid hormone production in newborn infants. It can occur because of an anatomic defect in the gland, an inborn error of thyroid metabolism, or iodine deficiency. FTT (failure to thrive), constipation, macroglossia, prolonged neonatal jaundice these are well known features of congenital hypothyroidism].

18. A mother comes with her 15 months child. Which of the following will bother you?
    A. Shies away from strangers
    B. Can walk but not run
    C. Vocabulary consists of only 2 meaningless words
    D. She can't make a sentence
    E. None

Ans.The key is C. Vocabulary consists of only 2 meaningless words. [At 15 months the child can clearly say 5 words and his first meaningful clear word he says at 12 months].

19. A 6 weeks child is brought in with vomiting, constipation and decreased serum K+. What is the diagnosis?
    A. Pyloric stenosis
    B. Duodenal atresia
    C. Hirschsprung disease
    D. Achalasia cardia
    E. Tracheo-esophageal fistula

Ans. The key is A. Pyloric stenosis. [why not duodenal atresia? Pyloric stenosis is much more commoner than duodenal atresia; in duodenal atresia the vomitus should contain bile, which is not the case in pyloric stenosis].

20. A child is brought in with high grade fever, runny nose and bark-like cough. What is the most appropriate treatment for this child?
    A. Corticosteroids
    B. Paracetamol
    C. Adrenaline nebulizer
    D. IV antibiotics
    E. Intubation under GA

Ans. The key A. Corticosteroids. [In epiglottitis there is no cough and bark like cough is diagnostic of croup. High fever, bark-like cough in a child suggest croup which is treated with corticosteroids].

21. A 5 month child can't speak but makes sounds. She can hold things with palm, not fingers. Can't sit independently but can hold her hand and sit when propped up against pillows. How's the childs development?
    A. Normal
    B. Delayed speech
    C. Delayed sitting
    D. Delayed motor development

Ans. The key is A. normal.

22. An 11 month baby had an apnea event. The parents are worried that if something like this happens in the future, how they are to deal. Advise them about infant CPR.
    A. Index and middle finger compression
    B. Compression with palm of one hand

C. Compression with palm of two hands
D. Compression with rescue breaths 30:2
E. Compression with rescue breaths 15:2

Ans. The key is A. Index and middle finger compression.

23. A 3-year-old child has a high temperature for 4 days and he had not seen a doctor. Then mother notices rashes on buccal mucosa and some around the mouth. What is the most appropriate diagnosis?
    A. Measles
    B. Roseola infectiosum
    C. Rubella
    D. Chicken pox
    E. Impetigo

Ans. The key is A. Measles. [Rash on buccal mucosa (koplicks spot) are characteristic of measles].

24. A 6-weeks-old child presents with progressive cyanosis, poor feeding, tachypnea over the first 2 wks of life and holosystolic murmur. What is the most appropriate condition?
    A. ASD
    B. VSD
    C. Tricuspid atresia
    D. PDA
    E. TOF

Ans. 1. The key is C. tricuspid atresia.

25. A baby born at 34 weeks with a heart murmur is kept in the incubator for almost 4 weeks. There is no murmur at discharge. What is the likely cause of this murmur?
    A. PDA (patent ductus arteriosus)
    B. TOF (tetralogy of Fallot)
    C. Aneurysm of sinus of Valsalva
    D. Aorto-pulmonary septal defect
    E. AVM (arteriovenous malformation)

Ans. The key is A. PDA. [The diagnosis is PDA which is more common in premature baby].

26. A 6-year-old girl who has previously been well presented with a history of tonic-clonic seizures lasting 4 minutes. Her mother brought her to the hospital and she appeared well. She is afebrile and didn't lose consciousness during the episode of seizure. She has no neurologic deficit. What is the most appropriate investigation for her?
    A. ABG
    B. Serum electrolytes
    C. ECG
    D. Blood glucose

Ans. The key is B. Serum electrolytes. [In hypoglycemic seizures there is loss of consciousness but in given case the girl didn't lose consciousness. Here likely cause may be electrolyte imbalance for which serum electrolytes should be done].

27. A 2-year-old child playing in the garden had a clean cut. She didn't have any vaccinations. Also, there is no contraindication to vaccinations. Parents were worried about the vaccine side effects. What will you give?
    A. Clean the wound and dress it
    B. Give TT only
    C. Give DPT only
    D. Give DPT and tetanus Ig
    E. Give complete DPT vaccine course

Ans. The key is E. Give complete DPT vaccine course.

28. A 6-year-old girl started wetting herself up to 6 times/day. What is the most appropriate treatment?
    A. Sleep alarms
    B. Desmopressin
    C. Reassure
    D. Behavior training
    E. Imipramine

Ans. The key is D. Behavioral training. [In diurnal enuresis first behavioural training is tried and if fails pharmacotherapy is given (oxybutynin)].

29. What advice would you give for the parents of a child with repeated UTI?
    A. Surgery
    B. Prophylactic antibiotics
    C. Increase fluids
    D. Toilet training
    E. Laxatives

Ans. The key is B. Prophylactic antibiotic.[For repeated UTI prophylactic antibiotic should be given].

30. A child presents with eczema. She was given two creams by the GP – emollient and steroid. What advice would you give her regarding application of the cream?
    A. Sparingly use both the cream
    B. First use emollient, then steroid
    C. Apply steroid then emollient
    D. Mix emollient & steroid before use
    E. Emollient at night with steroid

Ans. The key is B. First use emollient, then steroid. [emmolient 30 minutes before steroid].

31. A 1-month-old boy has been brought to the emergency department, conscious but with cool peripheries and has HR 222bpm. He has been irritable and feeding poorly for 24 hour. CXR

borderline enlarged heart with clear lung fields. ECG regular narrow complex tachycardia, with difficulty identifying p wave. What is the single most appropriate immediate treatment?
A. Administer fluid bolus
B. Administer oxygen
C. Oral beta-blockers
D. Synchronized DC cardio-version
E. Unilateral carotid sinus massage

Ans. The key is D. Synchrnized DC cardioversion. [As the patient is in probable hemodynamic instability (suggested by cool peripheries due to low BP or inadequate CO) so we should go for DC cardioversion. Probable diagnosis is SVT].

32. A child living with his stepfather is brought by the mother with multiple bruises, fever and fractures. What do you suspect?
A. NAI (non accidental injury)
B. Malnutrition
C. Thrombocytopenia
D. HIV

Ans. The key is A. NAI. [H/O living with stepfather, multiple bruises, fever and fractures are suggestive of NAI].

33. A child during operation and immediately after showed glycosuria, but later his urine sugar was normal. Choose the most probable diagnosis.
A. Pre-diabetic state
B. Normal finding
C. Low renal tubular threshold
D. DM

Ans. The key is B. Normal finding. [Stress like surgery resulted release of stress hormne that is cortisol in excess than normal and caused transient hyperglycemia as evidenced by glycosuria. This is a normal phenomenon and when stress is over cortisol level comes to normal and hyperglycemia and glycosuria resolves].

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34. A child was woken up from sleep with severe pain in the testis. Exam: tenderness on palpation and only one testis was normal in size and position. What would be your next step?
A. Analgesia
B. Antibiotics
C. Refer urgently to a surgeon
D. Reassurance
E. Discharge with analgesics

Ans. The key is C. Refer urgently to a surgeon. [Probable torsion of testis. Urgent referral to a surgeon is indicated].

35. A 6-months-old boy has been brought to emergency department following an apneic episode at home. He is now completely well but his parents are anxious as his cousin died of SIDS (Sudden Infant Death Syndrome) at a similar age. The parents ask for guidance on BLS (basic life support) for a baby of his age. What is the single most recommended technique for cardiac compressions?
    A. All fingers of both hands
    B. All fingers of one hand
    C. Heel of one hand
    D. Heel of both hand
    E. Index and middle fingertips of one hand

Ans. The key is E. Index and middle fingertips of one hand.

36. A 3-year-old child brought to the emergency department with a swelling over the left arm. X-ray shows multiple callus formation in the ribs. Exam: bruises on childs back. What is the most appropriate next step?
    A. Check child protection register
    B. Coagulation profile
    C. Skeletal survey
    D. Serum calcium
    E. DEXA scan

Ans. The key is C. Skeletal survey. [Skeletal survey is a series of x-ray which is usually used in NAI (non accidental injury)]. [after survey should think of child protection].

37. A 17-year-old man has acute pain and earache on the right side of his face. Temperature 38.4C and has extensive pre-auricular swelling on the right, tender on palpation bilaterally. What is the single most likely diagnosis?
    A. Acute mastoiditis
    B. Acute otitis externa
    C. Acute OM
    D. Mumps
    E. OM with effusion

Ans. The key is D. Mumps. [C/F: prodromal malaise, increased temperature, painful parotid swelling, becoming bilateral in 70%].

38. A 6-year-old boy is clinically obese, his BMI >95th centile. He has no other medical problems, examination is unremarkable. His mother says that she has tried everything to help him lose weight. What is the most probable diagnosis?
    A. Cushing's syndrome
    B. Congenital hypothyroidism
    C. Down's syndrome
    D. Lawrence moon biedel syndrome
    E. Primary obesity

Ans. The key is E. Primary obesity. [People are generally considered obese when their body mass index (BMI) is over 30 kg/m2. Obesity is most commonly caused by a combination of excessive food intake, lack of physical activity, and genetic susceptibility. A few cases are caused primarily by genes, endocrine disorders, medications, or mental disorder].

39. A 10-year-old boy is clinically obese and the shortest in his class. He had a renal transplant last year and his mother is worried that he is being bullied. What is the most probable diagnosis?
    A. Cushing's syndrome
    B. Congenital hypothyroidism
    C. Pseudocushing's syndrome
    D. Lawrence moon biedel syndrome
    E. Down's syndrome

Ans. The key is A. Cushing's syndrome. [Renal transplant--> immune suppression is needed-> exogenous steroid-->cushing syndrome. short stature--> if steroids are used in early age then they cause premature fusion of growth plate/calcification].

40. An 8-year-old boy has longstanding asthma. He has admitted with a severe episode and is tired and drowsy. He has not improved on oxygen, inhaled B2 agonist and IV hydrocortisone. CXR shows bilateral hyperinflation. He is too breathless to use a peakflow meter and is O2 sat <90%. What is the single most appropriate investigation?
    A. CBG (capillary blood gas)
    B. CXR
    C. CT chest
    D. Pulse oximetry
    E. Spirometry

Ans. The key is A. CBG. [It will point towards acidosis and indicate whether assisted ventilation is needed or not].

41. A 10-year-old boy who takes regular high dose inhaled steroids for his longstanding asthma has been advised to use bronchodilators to control his acute attacks. His parents are unsure when should he use his bronchodilator. What is the single most appropriate investigation?
    A. CXR
    B. None
    C. Peak flow rate diary
    D. Pulse oximetry

Ans. The key is C. Peak flow rate diary. [Peak flow rate diary shows diurnal variation. This diary shows when the bronchoconstriction remains worse and guides to use bronchodilators prior to that times].

42. A 6weeks formula fed baby boy is found at the child health surveillance to be deeply jaundiced. His weight gain is poor and his stools are pale. What is the most likely diagnosis?
    A. Galactosemia
    B. Biliary atresia
    C. G6PD deficiency
    D. Rh incompatibility

E. Congenital viral infection

Ans. The key is B. Biliary atresia. [Deep jaundice at 6th week with pale stools suggests obstructive jaundice. So most likely diagnosis here is biliary atresia].

43. An 18-month-old boy has been brought to the emergency department because he has been refusing to move his left arm and crying more than usual for the past 24 hours. He has recently been looked after by his mother's new boy friend while she attended college. Assessment shows multiple bruises and a fracture of the left humerus which is put in plaster. What is the single most appropriate next step?
    A. Admit under care of pediatrician
    B. Discharge with painkillers
    C. Follow up in fracture clinic
    D. Follow up in pediatric OPD
    E. Follow up with GP

Ans. The key is A. Admit under care of pediatrician. [This is NAI (non accidental injury). So the child cannot be handover to the risk again and should be admitted to protect him from further injury done by mothers boyfriend while serial x-rays and relevant investigations done and asked for child protection unit's help].

44. A 15-month-old child is due for his MMR vaccine. There is a family history of egg allergy. He is febrile with acute OM. What is the single most appropriate action?
    A. Defer immunization for 2wks
    B. Don't give vaccine
    C. Give half dose of vaccine
    D. Give paracetamol with future doses of the same vaccine
    E. Proceed with standard immunization schedule

Ans. The key is A. Defer immunization for 2 wks.

45. A 3-month-old baby was miserable and cried for 2hour following his 1st routine immunization with DTP, HiB and meningitis. What is the single most appropriate action?
    A. Defer immunization for 2wks
    B. Don't give vaccine
    C. Give half dose of vaccine
    D. Give paracetamol with future doses of the same vaccine
    E. Proceed with standard immunization schedule

Ans. The key is E. Proceed with standard immunization schedule.

46. A mother is concerned that her 18 month old son has a vocabulary of ten words but can't form asentence. What is the best management strategy?
    A. Arrange hearing test
    B. Assess developmental milestones
    C. Reassurance
    D. Refer to speech therapist

E. MRI brain

Ans. The key is C. Reassurance. [Two words joining can be done in 2yrs and inability to form a sentence in 18 months is quite normal. So the option is reassurance].

47. A 9-months-old child is brought to the emergency department with an irreducible firm swelling which descended into the left groin when the child has been crying. Exam: both testicles are palpable in the scrotum. What is the most appropriate management strategy?
    A. Reassurance
    B. Emergency herniotomy
    C. Elective herniotomy
    D. Emergency herniotomy + orchidopexy
    E. Elective herniotomy + orchidopexy

Ans. The key is C. Elective herniotmy. [If there was features of strangulation we would go for emergency herniotomy. But as only irreducible we shall proceed to elective herniotomy].

48. A mother presents with her 12 month old daughter. The child has no meaningful words, is unable to sit unaided and can't play with her toys. She doesn't laugh and has poor interaction with her
    siblings. What is the best management strategy?
    A. Arrange hearing test
    B. Assess developmental milestones
    C. Reassure
    D. Refer to speech therapist
    E. MRI brain

Ans. The key is B. Assess developmental milestones. [At 12 month one word should be said clearly, in 8 months child can sit independently, smiles at 2 months and plays with toys since early infancy. So she needs to assess developmental milestones].

49. A 6-year-old girl has had 2 short episodes of cough and wheeze over the last 12 months. These 2 acuteepisodes responded quickly to bronchodilator, she has no symptoms or abnormal physical signs.She has slight eczema and her mother has asthma. What is the single most appropriate investigation?
    A. CXR
    B. Peak flow rate diary
    C. Pulse oximetry
    D. Spirometry
    E. Sweat test

Ans. The key is D. Spirometry. [spirometry is the preferred initial test (if available) to assess the presence and severity of airflow obstruction less effort dependent and more repeatable though less applicable in acute severe asthma].

50. A 4-year-old boy is brought by his parents with complains of wetting his bed at night and whenever he gets excited. What would be the most appropriate management for this child?

A. Desmopressin
B. Oxybutanin
C. Behavioural therapy
D. Reassurance
E. Restrict fluid intake

Ans. The key is D. Reassurance. [Before 5 years of age enuresis is considered normal and reassure that in most cases it resolves within 5 yrs of age without any intervention].

51. A 6-weeks-old child with profuse projectile vomiting. What is the first thing you will do?
    A. US
    B. Check serum K+ level
    C. ABG
    D. NG tube
    E. IV fluids

Ans. The key is E. IV fluid.

52. A 10-year-old boy is taken to his GP by his parents with behavioural problems. He attends a special school due to inappropriate behavior and during the interview with his parents the boy barks atinfrequent episodes and shouts expletives. What is the most likely diagnosis?
    A. Asperger syndrome
    B. Cotard syndrome
    C. Rett syndrome
    D. Ekbom syndrome
    E. Tourette's syndrome

Ans. The key is E. Tourette's syndrome. [Tourete's syndrome may have motor tics like blinking, facial grimacing, shoulder shrugging. Other complex motor tics may be sniffing, touching objects, hopping, jumping, bending or twisting. It has vocal tics like throat clearing, sniffing, grunting or barking and more complex like coprolalia (uttering socially inappropriate words) or echolalia (repeating the word or phrase of others)].

53. A mother presents her 6 month old son who is vocalizing. She has noticed that he doesn't respond to loud noises. His motor milestones are normal. What is the best management strategy?
    A. Arrange hearing test
    B. Assess development milestones
    C. Reassure
    D. Refer to speech therapist
    E. MRI brain

Ans. The key is A. Arrange hearing test. [Normal motor milestones indicate normal development but unable to respond to loud noise at 6 months may indicate deafness].

54. A 4-months-old girl has severe FTT (Failure To Thrive) and increasing jaundice which was 1st noticed at 1wk of age. She has an enlarged liver and scratches on her skin. Her parents have been unable to seek medical care. What is the most likely diagnosis?
    A. Biliary atresia
    B. G6PD deficiency
    C. Hep B
    D. Spherocytosis

Ans. The key is A. Biliary atresia. [Increasing jaundice at this age with failure to thrive, enlarged liver and scratches (itching) indicate cholestatic jaundice occurs likely from biliary atresia].

55. A child admitted with progressive muscle weakness and frequent falls. What is the most probable diagnosis?
    A. Duchenne's MD
    B. Becker's MD
    C. Polymyositis
    D. Dermatomyositis
    E. Polymyalgia rheumatic

Ans. The key is A. Duchenne's MD.

56. A 4-year-old boy has a cough and arthritis followed by rash on legs which are non-blanching on glass test. No history of fever. PT 13, APTT 31, Hgb 12, WBC 6.5, Platelets 300. What's the most likely diagnosis?
    A. Meningitis septicemia
    B. Hemophilia
    C. HSP
    D. ITP
    E. TTP

Ans. The key is C. HSP. [Usually occurs below 10 years of age. The characteristic rash and lab findings matches with HSP].

57. A 6-year-old child presented with drooling of saliva and severe stridor. He is febrile and sick looking. X-ray Neck in extension shows a thumb sign. Choose the single most likely diagnosis.
    A. Croup
    B. URTI
    C. Diphtheria
    D. Acute epiglottitis

Ans. The key is D. Acute epiglottitis. [Drooling of saliva and stridor along with thumb sign in neck X-ray are features of acute epiglottitis].

58. A mother presents with her 3-year-old son who has indistinct nasal speech. He snores at night and has restless sleep. He is tired by day. What is the best management strategy?
    A. Arrange hearing test
    B. Assess development milestones

C. Refer to ENT surgeon
D. Refer to speech therapist
E. MRI brain

Ans. The key is C. Refer to ENT surgeon. [Probable enlarged adenoid].

59. A 3-year-old boy has a sudden onset of fever, vomiting and bilateral face swelling. Few days earlier the GP saw him for bilateral parotid pain and gave analgesics. What is the most appropriate next step?
    A. Analgesic
    B. Antibiotic
    C. Biopsy
    D. Immediate surgery
    E. Reassurance

Ans. The key is E. Reassurance. [A case of mumps. Self limiting condition].

60. A 6-year-old boy has completed an induction course of chemo for ALL. He has an enlarged left scrotum. What is the most appropriate next step?
    A. Herniotomy
    B. CT abdomen
    C. Biopsy
    D. Immediate surgery
    E. Reassurance

Ans. The key is C. Biopsy. [Relapse may directly involve testis and excisional biopsy is done to confirm recurrence of leukemia].

61. An 8-year-old boy diagnosed with asthma is on salbutamol and beclomethasone. However, he wakes up at night due to his symptoms. What is the next appropriate management?
    A. LABA
    B. High dose steroid
    C. LTRA (leukotriene receptor antagonist)
    D. Oral prednisolone
    E. Sodium cromoglycate

Ans. The key is C. LTRA.

62. A 2-year-old child aspirated a foreign object which was removed at the hospital. the parents are now asking how to remove it if that ever happens at home. What do you advise?
    A. Hemlich maneuver
    B. Bring to the hospital
    C. Turn the child on his back and give thumps
    D. CPR
    E. Remove manually by fingers

Ans. The key is C. Turn the child on his back and give thumps.

63. A 3-year-old child with severe diarrhea and vomiting, looks lethargic, has sunken eyes and a feeble cry. What is the choice of fluids?
    A. 0.9%NS
    B. 0.9%NS + 5%Dextrose
    C. 0.45%NS + 5%Dextrose
    D. 0.45%NS

Ans. The key is A. 0.9% NS. [Patient has features of severe dehydration and should be resuscitated first and for resuscitation fluid of choice is 0.9% NS].

64. You are a FY doctor in the emergency department when a mother brings her 2 year old son to you with a 1hour history of noisy breathing. She states that although he had mild coryza over the last week, he was improving and so they had gone to a children's picnic with nursery friends. Another parent had found him coughing and spluttering, and ever since his breathing has remained noisy. Though he appears well in the emergency department, his current observations demonstrate a raised RR (respiratory rate) and sat=91% on air. What is the most likely diagnosis?
    A. Anaphylaxis
    B. Croup
    C. Foreign body aspiration
    D. Epiglottitis

Ans. The key is C. Foreign body aspiration.

65. A 1-year-old child is brought to emergency department. He woke up in the middle of the night crying severely. What initial measure should be taken for this child?
    A. Refer to surgeon
    B. Discharge with advice
    C. Analgesia
    D. Antibiotic

Ans. The key is C. Analgesia.

66. Anxious parents ask you for resuscitation technique for their 3-year-old. What do you tell them?
    A. 5 compression: 1 breath
    B. 5 compression: 2 breaths
    C. 15 compression: 2 breaths with nose pinched
    D. 15 compression: 2 breaths without nose pinched
    E. 30 breaths: 2 compressions

Ans. The key is C. 15 compression:2 breaths with nose pinched.

67. A 2-year-old male patient was brought by his mother with a swelling in the right side of his neck extending from the angle of the mouth to the middle 1/3 of the sternocleidomastoid muscle. The swelling was on the anterolateral side of the sternocleidomastoid and was brilliantly transilluminant. What is the likely diagnosis?

A. Lymphangioma
B. Branchial cyst
C. Thyroglossal cyst
D. Ranula
E. Thyroid swelling

Ans. The key is A. Lymphangioma. [Both lymphangioma and brancheal cyst are lateral neck mass. 90% of lymphangioma occur in children less than 2 yrs. Brancheal cyst usually does not transilluminate whereas lymphangioma usually transilluminate brilliantly].

68. A 2-year-old girl previously well presents with a history of vomiting and diarrhea for 4 hours. What is the mostsuitable indication for IV fluid administration?
    A. Capillary refill time >4s
    B. HR >90bpm
    C. Increased RR
    D. Stool >10 times/day
    E. Weight of child = 10kgs

Ans. The key is A. Capillary refill time >4s. [Capillary refill time >4s is sign of severe dehydration indicating need for IV fluid administration. Features of severe dehydration: i) abnormally sleepy or lethargic ii) sunken eyes iii) drinking poorly or not at all iv) reduced skin turgr> 2 seconds v) dry tongue and mucous membrane vi) absent tears vii) oliguria viii) hypotension ix) tachycardia x) prolonged capillary refill time xi) depressed anterior frontanelle].

69. A young boy presented with bilateral periorbital edema, ankle swelling and increase in body weight. What is the most likely diagnosis?
    A. Chronic heart failure
    B. Nephrotic syndrome
    C. Renal failure
    D. Acute heart failure
    E. Glomerulonephritis

Ans. The key is B. Nephrotic syndrome.

70. An 8-year-old child presents with recurrent abdominal pain, occasional headaches but maintains a good appetite. Exam: normal. CBC, BUE, etc are normal. What would you do for her next?
    A. US abdomen
    B. CT head
    C. Reassure
    D. Analgesics

Ans. The key is C. Reassure. [Recurrent abdominal pain and headaches with no abnormal finding on examination and investigation points to Abdominal Migraine. Management is reassurance].

71. Parents of a 3 months baby are worried about cot death. What advice would you give?
    A. Lay on the back with feet towards head end

B. Lay on the back with feet towards feet end
C. Lay on side
D. Lay on stomach

Ans. The key is B. Lay on the back with feet towards feet end.

72. A child born at 36 weeks developed difficulty in breathing with intercoastal recession and nasal flaring. His temp is normal but his mother had PROM 48 hours ago. What is the most likely investigation that will lead to treatment?
A. Blood culture
B. CXR
C. Stool culture
D. Sputum culture

Ans. The key is A. Blood culture. [In neonates investigations of pneumonia is for sepsis as pneumonia at this age is always secondary to sepsis or a part of sepsis. Probable diagnosis is Neonatal Pneumonia as there is respiratory signs and history of PROM. In extremes of age pneumonia or sepsis may be with normal temperature or even there may be hypothermia. Here pneumonia is a part of sepsis and investigation is not CXR but blood culture. Chest X-ray will give signs of lung lesions but will not lead to specific treatment. Blood culture will give the results that will lead to specific treatment].

73. A 15-year-old boy presents with recurrent breathlessness and wheeze especially after exercise. What is the most diagnostic investigation?
A. CXR
B. Lung function test
C. PEFR
D. CT scan

Ans. The key is B. Lung function test. [Assessment of severity of airflow obstruction can diagnose asthma and COPD].

74. A 6-year-old child presents with edema and mild proteinuria. No hematuria. What is the most likely diagnosis?
A. PSGN
B. Membranous GN
C. Minimal change GN
D. RPGN

Ans. The key is C. Minimal change GN. [Minimal change GN is usually seen in young children. It presents as edema and proteinuria].

75. A 12-year-old boy presented with itching in his hands. Examination: skin is dry and red. His mother isasthmatic and elder brother has hay fever. What is the single most likely causative factor?
A. Dermatitis herpitiformis
B. Scabies
C. Eczema

D. Uremia
E. Drug induced

Ans. The key is C. Eczema. [Itchy lesion and family history of asthma and hay fever in 1st degree relatives favours the diagnosis of eczema].

76. A 4-year-old girl is taken by her mother to the emergency department and complains of feeling unwell, urinary urgency and temperature 39 C. What is the single next best investigation?
A. Catheter catch of urine
B. Clean catch of urine
C. US
D. IVU
E. Suprapubic catch of urine

Ans. The key is B. Clean catch of urine. [The clinical features described are consistent with urinary tract infection for which clean catch of urine is the next best investigation].

77. A 2-year-old girl presents with a 4 day history of fever that started with a cough. Her RR (respiratory rate) 45bpm, saturation 94%, temperature 38.9C, capillary refill time 1s. There are crepitations at the left base on auscultation. Urine shows negative dipstick. What is the single investigation most likely to lead to diagnosis?
A. Blood for C&S
B. ESR
C. CXR
D. Urine for C&S
E. CSF analysis

Ans. The key is C. CXR. [The features are consistent with RTI (probable pneumonia) for which CXR is the investigation of choice].

78. A 3-year-old girl presents with fever for 2 days. She is drowsy and had a seizure causing twitching of the right side of the body for 4minutes. Her RR (respiratory rate) 30bpm, saturation 90%, temperature 38.9C, capillary refill time2s. Urine negative on dipstick. What is the single investigation most likely to lead to diagnosis?
A. Blood for C&S
B. ESR
C. CXR
D. Urine for C&S
E. CSF analysis

Ans. The key is E. CSF analysis. [It is really very difficult to differentiate between encephalitis and meningitis. Encephalitis is mostly viral and in UK herpes simplex virus is the main cause. Meningitis also has a viral predominance though less than encephalitis.

Because encephalitis involves infection of the brain itself, symptoms of altered brain function--like confusion or decreased alertness--are usually present, while in cases of meningitis the patient is initially

alert and, though understandably distracted by pain and misery, still in command of their mental processes.

As CSF can not differentia between meningitis and encephalitis we have to take help of imaging like MRI. In herpes simplex encephalitis there is characteristic hyperintensity in fronto-temporal region.

In the given case there are features of raised intracranial pressure like drowsiness and seizer and so we cannot proceed for LP unless guided by CT (or MRI). On the other hand there is no other option that can be diagnostic of the given condition. So we have to happy with CSF analysis as the key though at this moment we have to withheld this procedure].

79. A 6-months-old boy is admitted with persistent irritability. He is lethargic and is not feeding as well as usual. His RR (respirarory rate) is 30bpm, saturation 97%, temperature 38.0C, capillary refill time 2seconds. Urine reveals leucocytes on dipstick. What is the single investigation most likely to lead to diagnosis?
    A. Blood for C&S
    B. ESR
    C. CXR
    D. Urine for C&S
    E. CSF analysis

Ans. The key is D. Urine for culture and sensitivity. [Dipstick test if show leucocytes or nitrites is suggestive of UTI. So to confirm it we should do urine C&S].

80. A 3-year-old boy presents with a 1 day history of being unwell. He appears shocked and has 3 hour old rash made up of urticarial and purpural spots. His RR (respiratory rate) is 30bpm, saturation 94%, temperature 39.0C, capillary refill time 1 second. Urine is clean on dipstick. What is the single investigation most likely to lead to diagnosis?
    A. Blood for C&S
    B. ESR
    C. CXR
    D. Urine for C&S
    E. CSF analysis

Ans. The key is A. Blood for C&S. [Likely diagnosis is septicemia for which Blood culture is the investigation of choice].

81. A child is diagnosed with VUR. What would you tell his parents?
    A. Requires antibiotic prophylaxis
    B. Most will require surgery
    C. Most will have kidney scarring by 5yo
    D. Nothing can be done
    E. Reassure

Ans. The key is A. Require antibiotic prophylaxis. [Practically it is established that majority of VUR will cure with time with prophylactic antibiotics and need no surgery! Only a minority needs surgery].

82. A 2-year-old child presents with severe vomiting. Examination: mass felt in abdomen. What investigation is most appropriate?
    A. US
    B. XR
    C. CT
    D. CBC

Ans. The key is A. US.

83. A 7-year-old girl is brought by her mother with bright red staining of her underpants. She also gives a history that her daughter recently started taking horse riding lessons. What is the single most appropriate next action?
    A. Local exam
    B. Exam under GA
    C. Continue regular child care
    D. Inform child protection services
    E. Coag profile

Ans. The key is A. Local exam. [If child refuse local exam then exam under GA].

84. A 7days baby whose birth weight was 3.5kg and now is 3kg. What is the most appropriate next step?
    A. Check child protection register
    B. Nutritional assessment
    C. Skeletal survey
    D. Continue regular child care
    E. Inform police

Ans. The key is D. Continue regular child care. [In 1st week the baby loose some weight then start gain weight again. It is normal. So the option is continue regular child care].

85. A 6-year-old child fell on his nose 2 days ago. His parents have now brought him with difficulty in breathing. Examination: fever, nasal bones are straight. What is the single most likely diagnosis?
    A. Nasal polyp
    B. Septal hematoma
    C. Septal abscess
    D. Deviated nasal septum
    E. Fracture nose

Ans. The key is B. septal hematoma. [Septal abscess takes a bit more time and a considerable portion of caseof septal hematoma is associated with fever].

86. A 12-year-old patient came to the OPD with complains of fever, malaise, weight loss, anorexia andproductive cough. Examination: temperature 39C, pulse 100bpm. His mother says that he has a history of recurrent chest infections and he is not thriving well. What is the single most likely causativeorganism?

A. Pneumococcal pneumonia
B. Staphylococcus
C. Mycobacterium TB
D. Pseudomonas
E. PCP

Ans. The key is B. Staphylococcus. [In younger age Staphylococcus and by 18 years of age, 80% of patients with classic CF (cystic fibrosis) harbor P. aeruginosa, and 3.5% harbor B. cepacia].

87. A 3-year-old child brought by his mother. Examination: bruises on the buttocks. Mother also gives history of runny nose 2 weeks ago. What is the single most appropriate next action?
    A. Check child protection register
    B. Coag profile
    C. Skeletal survey
    D. Continue regular child care
    E. Inform police

Ans. The key is B. Coagulation profile. [Henoch schonlein purpura occurs mostly in the winter months. About 50-90% of patients have a preceding upper respiratory tract infection (URTI). There is a symmetrical, erythematous macular rash, especially on the back of the legs, buttocks and ulnar side of the arms. Within 24 hours, the macules evolve into purpuric lesions, which may coalesce and resemble bruises. Plasma D-dimer - May be substantially increased. PT and aPTT - May be reduced (eg, hypoprothrombinemia)].

88. A 4-year-old is brought to the emergency department by ambulance. His mother reports that he has been unwell with a sore throat for 8 hours. He is sitting on his mother's knee and is tolerating an oxygen mask but looks unwell. He has constant noisy breathing and he is drooling saliva. His temp=39C. What is the most important diagnosis?
    A. Acute asthma
    B. Bronchiolitis
    C. Croup
    D. Epiglottitis
    E. Tonsillitis

Ans. The key is D. Epiglottitis.

89. A child was brought in to emergency department by his parents for taking his grand-dad's medicines. There is an extra systole in the ECG. Which drug was taken?
    A. Digoxin
    B. Amitryptiline
    C. Atenolol
    D. Ramipril
    E. Bendroflumethiazide

Ans. The key is A. Digoxin. [Both digoxin and amitryptiline can cause extrasystole].

90. A 12-month-old child with AIDS is due for his MMR vaccination. What is the single most appropriate action?
    A. Defer immunization for 2wks
    B. Don't give vaccine
    C. Give half dose of vaccine
    D. Give paracetamol with future doses of the same vaccine
    E. Proceed with standard immunization schedule

Ans. The key is B. Don't give vaccine. [MMR is live attenuated vaccine which should be avoided in AIDS]. [*** Please note, in similar question where asked about HIV positive child's vaccination and the answer was give all vaccines except BCG. HIV positive is not in a immunodeficient state and can receive live attenuated vaccines (except BCG), where as child with AIDS means he has criteria of immunodeficiency already for which all live attenuated vaccines should be avoided]. [Please note the two terms "HIV positive" and "with AIDS"].

91. A 6 weeks baby with vomiting, irritability and palpable mass in the abdomen on feeding. Choose the single most likely investigation?
    A. Upper GI endoscopy
    B. Barium meal
    C. US
    D. CT abdomen
    E. Barium enema

Ans. The key is C. US. [Palpable mass in the abdomen "ON FEEDING" (just after feeding the mass becomes more prominent and can be palpated more easily) is suggestive of pyloric stenosis. US is used to diagnose this].

92. A 10-year-old boy is brought to the hospital with a rash over his buttocksa/w abdominal pain andvomiting. In the emergency department, he is accompanied by his mother and stepfather. His mother had left himfor the weekend with the stepfather and was called to come back from holiday as he started tohave some hematuria with the rash. Social services had been notified on arrive to hospital. Whatis the most probably diagnos?
    A. NAI
    B. ITP
    C. HSP
    D. ALL
    E. HUS

Ans. The key is C. HSP. [Rash over buttock, abdominal pain and vomiting, blood in urine or stool suggest HSP].

93. A child distressed with fever, stridor and unable to swallow saliva. His RR 40bpm. What is the initial step that needs to be taken?
    A. Examine throat
    B. Secure airway
    C. Keep him laid flat
    D. IV penicillin

Ans. The key is B. Secure airway. [Probable epiglottitis. So airway should be secured].

94. A 7-year-old school boy has been diagnosed with meningococcal meningitis. What is the advice forschoolmates and staff?
    A. Rifampicin for the whole class and family
    B. Rifampicin for the whole school and family
    C. Meningococcal vaccine for the family
    D. Benzylpenicillin
    E. IV cefotaxime

Ans. The key is A. Rifampicin for the whole class and family. [In contacts of meningococcal meningitis chemoprophylaxis is given with Rifampicin].

95. A 6-year-old child presents with history of recurrent jaundice. Between the episodes he is totally fine. Mother gives history of jaundice being brought about by ongoing infections. What is the most likely diagnosis?
    A. Hereditary spherocytosis
    B. G6PD deficiency
    C. Thalassemia
    D. Sickle cell disease
    E. Congenital storage disorder

Ans. The key is B. G6PD deficiency. [There are some precipitating factors of hemolysis causing jaundice in patients with G6PD deficiency among which infection is a recognized one].

96. A child was admitted with fever, generalized skin lesion, some of them are weeping lesions and some of them are crusted. What is the most probable diagnosis?
    A. Varicella
    B. Impetigo
    C. Drug reaction
    D. Contact dermatitis
    E. Scabies

Ans. The key is A. Varicella. [Please consider diagnosis of impetigo if specifically mention honey (or yellow or golden) coloured lesion or distribution described to be on face and limbs predominately. Otherwise consider chickenpox].

97. A child had a patchy rash following treatment for sore throat & cervical LN enlargement. Which is the most likely antibiotic?
    A. Ampicillin
    B. Erythromycin
    C. Cefuroxime
    D. Metronidazole
    E. Tetracycline

Ans. The key is A. Ampicillin. [Infectious mononeucleosis can present with sorethroat and lymphadenothy like tonsillitis and if treated with ampicillin leads to eruption of patchy rashes].

98. A child with a history of asthma is brought to emergency department with a cut on knee and sprained on her left wrist. Which is the best analgesic for her?
    A. Paracetamol
    B. NSAIDs
    C. Cocodemol
    D. Ibuprofen

Ans. The key is A. Paracetamol. [NSAIDs including ibuprofen can precipitate asthma and Cocodamol is also advised to avoid in asthma (due to its codeine content). So paracetamol is the best option here].

99. A 15-month-old baby girl presented to the emergency department with difficulty in breathing. Examination: she has intercostal recessions and a wheeze. Temperature normal. What is the most likely diagnosis?
    A. URTI
    B. Pneumonia
    C. Bronchiolitis
    D. RDS
    E. Alpha 1 antitrypsin deficiency

Ans. The key is C. Bronchiolitis. [Asthma and bronchiolitis has similar sign symptoms. The difference is in pathology. In asthma there is bronchoconstriction but in bronchiolitis there is oedema of the airway wall. In infants and younger children bronchiolitis is commoner than asthma and it is seen that many of the children with bronhiolitis usually followed by asthma].

100. An 8-year-old boy develops a seizure affecting his right arm, seizure lasts for several minutes. He doesn't remember anything what happened. On his CT: lesion in left hemisphere. What is the most probable diagnosis?
    A. Epilepsy
    B. Space occupying lesion
    C. Dementia
    D. Huntington's chorea
    E. Intracranial HTN

Ans. The key is B. Space occupying lesion. [This is complex partial seizure due to space occupying lesion].

101. A 14-year-old boy has been diagnosed with nephrotic syndrome. 5 days later he presents with flank pain, hematuria and fluctuating urea levels. A diagnosis of renal vein thrombosis is made. What is the most likely cause for renal vein thrombosis?
    A. Protein C deficiency
    B. Vasculitis
    C. Loss of antithrombin III
    D. High estrogen levels
    D. Stasis

Ans. The key is C. Loss of antithrombin III.

102. A 2-days-old baby's mother is worried about the baby's hearing. Mother has a history of conductive hearing loss. What is the most appropriate test?
A. Brain stem evoked response
B. CT
C. Fork test
D. MRI
E. Reassure

Ans. The key is A. Brain stem evoked response. [A BAER (brainstem auditory evoked response) test can help to diagnose hearing loss and nervous system disorders, especially in newborns, young children, and others who may not be able to participate in a standard hearing test].

103. A healthy 8-year-old boy had antibiotic treatment for meningitis. Initially he wasn't resuscitated. What will be the outcome if he receives full treatment?
A. He will recover fully to his prv health
B. He will have hearing impairment
C. He will have brain abscess
D. He will have encephalitis

Ans. The key is A. He will recover fully to his prvious health.

104. A mother presents with her 14-month-old child. He holds furniture and other things to help him stand and walk. He can say 'mama' and 'papa'. He makes eye contact and smiles. He can transfer objects from one hand to another. He responds to his name. what do you interpret from his development?
A. Delayed gross motor development
B. Delayed fine motor development
C. Delayed verbal development
D. Normal development
E. Delayed social development

Ans. The key is D. Normal development.

105. A young child, 3 year old, has presented with vomiting for 3 days. Examination: mild to moderate dehydration. What is his ABG (arterial blood gas) profile likely to show?
A. pH low, PCO2 low
B. pH low, PCO2 high
C. pH high, PCO2 low
D. pH high, PCO2 high

Ans. The key is D. pH high, PCO2 high. [Prolonged vomiting causes loss of H+, Cl- and Na+. There is also hypokalemia. There occur metabolic alkalosis. Compensation for metabolic alkalosis occurs mainly in the lungs, which retain carbon dioxide (CO_2) through slower breathing, or hypoventilation (respiratory compensation) leading to high PCO_2].

106. A 7-year-old girl with allergy became acutely unwell while visiting a friend's house and has been brought immediately to the emergency department. She is fully conscious but has

got stridor, wheeze anderythematous rash. She is receiving oxygen. What is the single immediate management?
A. Check airway patency and prepare intubation
B. Give 0.25ml in 1000U epinephrine IM
C. Give 10mg chlorphearamine IM
D. Give 50ml hydrocortisone IM
E. Obtain secure IV access

Ans. The key is B. Give 0.25ml in 1000U epinephrine IM. [Stridor is one of the indication of IM epinephrine in anaphylaxis].

107. A child has hypothyroidism. What feature is along with it?
A. Microglossia
B. Prolonged neonatal jaundice
C. Undescended testis
D. Anal tag
E. Left soft palate

Ans. The key is B. Prolonged neonatal jaundice. [Prolonged neonatal jaundice is a well known feature of hypothyroidism].

108. A 2-weeks-old girl presents with E-coli which is confirmed by urine culture. What is the most appropriate next investigation?
A. US
B. IVU
C. CT kidney
D. BUE
E. MCUG

Ans. The key is US. [Infants and children who have had a lower urinary tract infection should undergo ultrasound (within 6 weeks) only if they are younger than 6 months or have had recurrent infections. Reference: NICE guideline (Probably to exclude VUR wich is a cause of recurrent UTI)].

109. A young boy presented with peri-oral blisters. Some of which are weeping and others are crusted. What is the single most appropriate diagnosis?
A. Impetigo
B. Varicella zoster
C. Shingles
D. Scabies
E. Herpes simplex

Ans. The key is A. Impetigo. [Distribution of varicella zoster is centripetal (more in central area (trunk) and less in limbs and face. On the other hand if blisters are present mainly on face or limbs and/or described as golden, yellow or honey coloured crusts, are impetigo].

110. A 6-weeks-old baby has a blue mark near coccyx since birth. His mother is worried. What would you do?

A. Reassure
B. Coag profile
C. Karyotyping
D. Skeletal survey
E. CT

Ans. The key is A. Reassure. [This is a benign condition known as “Mongolian spot” or “Mongolian blue”. Mongolian spot refers to a macular blue-gray pigmentation usually on the sacral area of healthy infants. Mongolian spot is usually present at birth or appears within the first weeks of life. Mongolian spot typically disappears spontaneously within 4 years but can persist for life].

111. A 9-year-old girl with weekly abdominal pain and occasional headaches but not along with vomiting or diarrhea. She maintains a good appetite. Laboratory findings: normal. CBC, BUE, etc are normal. Examination: no abnormality found and the abdomen was soft and non-tender. What would you do for her next?
A. US abdomen
B. CT thorax
C. LFT
D. Reassure
E. Analgesics

Ans. The key is D. Reassure. [Probable case of abdominal migraine a benign condition for which reassurance is appropriate. Abdominal migraine is a form of migraine seen mainly in children. It is most common in children ages five-nine years old, but can occur in adults as well. The diagnostic criteria for abdominal migraine are:

A. At least five attacks fulfilling criteria B–D.

B. Attacks of abdominal pain lasting 1-72 hours (untreated or unsuccessfully treated).

C. Abdominal pain has all of the following characteristics:

C1. Midline location, periumbilical, or poorly localized

C2. Dull or ‘just sore’ quality

C3. Moderate or severe intensity

D. During abdominal pain at least two of the following:

Anorexia

Nausea

Vomiting

Pallor

Not attributed to another disorder].

112. A 6-weeks-old baby has been diagnosed as HIV+ve. Which immunization plan will you opt for him?
A. Don't give any vaccine
B. Give all vaccines except live attenuated vaccines
C. Give only BCG vaccine
D. Give all vaccines except BCG vaccine

Ans. The key is D. Give all vaccines except BCG vaccine. [There are two terms HIV +ve (not immune deficient yet) and AIDS (immune deficient state). In HIV +ve case live attenuated vaccines can be given except BCG and if AIDS all live attenuated vaccines are avoided].

113. A 2-year-old girl has had a temperature of 39C, poor appetite, abdominal pain and urinary frequency for 3 days. What is the single most appropriate investigation?
A. Catheter specimen of urine for culture
B. Clean catch urine specimen for culture
C. CBC
D. KUB US
E. Supra-pubic aspirate of urine for culture

Ans. The key is B. Clean catch specimen of urine for culture.

114. A child with T1DM who is not compliant with medicines and eats a lot. He thinks that he is short in his class. He is not happy. What would you do next?
A. Refer to psychologist
B. Refer to pediatrician
C. Refer to GP
D. Refer to social services
E. Change type of insulin

Ans. The key is A. Refer to psychologist. [Not compliant with medicine, eating a lot, thinking of being short and being unhappy these are psychological issues. So he should be referred to psychologist].

115. An 8-year-old boy with a BMI of 28 was admitted to a surgical ward following a MVC (motor vehicle collision). He was found to have glycosuria. When he recovered from his injury the glycosuria resolved. What is the single most appropriate follow-up investigation?
A. Fasting blood glucose conc
B. Glycosylated hemoglobin - HbA1c
C. OGTT
D. Random blood glucose conc
E. Serum cortisol conc

Ans. The key is A. Fasting blood glucose concentration. [The boy had glycosuria while treating in hospital following a MVC (motor vehical collision). It may be due to stress related cortisol release cousing hyperglycemia which later became nil as the boy recovered from trauma. But yet to certain that he is not diabetic fasting blood glucose concentration should be done in follow up visit].

116. At birth, a baby boy at 38 weeks GA (gestational age) weighs 1.8kgs. He has hepato-splenomegaly and a rash. Blood test show raised level of bilirubin and liver enzymes. What is the most likely diagnosis?
A. Galactosemia
B. Biliary atresia
C. G6PD deficiency
D. Rh incompatibility
E. Congenital viral infection

Ans. The key is E. Congenital viral infection. [Congenital infections affect the unborn fetus or newborn infant. They are generally caused by viruses that may be picked up by the baby at any time during the pregnancy up through the time of delivery. The more common viruses linked to congenital infections include the Cytomegalovirus (CMV), Herpes, Rubella (German measles), Parvovirus, Varicella (chickenpox), and Enteroviruses].

117. A 12-year-old boy with T1DM (type1 diabetes mellitus) has poor long-term control. He is unconscious, hyperventilating and dehydrated. His blood glucose is 28mmol/l. What is the single most important initial treatment?
A. Albumin IV
B. Bicarbonate IV
C. Insulin IV
D. Insulin SC
E. Saline 0.9% IV

Ans. The key is E. Saline 0.9% IV. [Probable diabetic ketoacidosis. Initial treatment is IV fluid (0.9% saline)].

118. A 14-year-old boy presents with recurrent abdominal pain, malaise and weight loss over 6 months. Examination: vague mass is felt in RIF. Colonoscopy shows transmural inflammation and granulomata. What is the most appropriate management?
A. Sulfasalazine
B. Paracetamol
C. Metronidazole
D. Ibuprofen

Ans. The key is A. Sulfasalazine. [Drug of 1st preference is Steroids, then immunosuppressants, then amynosalicylates (such as sulfasalazine). Metronidazole is used if there is infective complications like infected perianal fistula Ref: patient.info].

119. A 13-year-old boy with umbilical pain for the last 12 hours presents with anorexia, nausea and has not passed a bowel motion for 24 hours. What is your diagnosis?
A. Acute appendicitis
B. IBD
C. IBS
D. Meckel's diverticulum
E. Muscle strain
F. Ovarian cysts
G. PID

H. Psoas hematoma
I. Pyelonephritis
J. Uretric calculus

Ans. The key is D. Meckel's diverticulum. [In appendicitis pain shifts to rt iliac fossa within few hours].

120. A 10-year-old boy with lower abdominal pain for the last 10 days presents with a history of passing 6-8 loose stools. Temperature 38.8C. He is tender in the right lower quadrant and has an anal fistula. Choose the single most likely cause of abdominal pain.
A. IBD
B. IBS
C. Pyelonephritis
D. Uretric calculus
E. Gastroenteritis

Ans. The key is A. IBD. [Likely diagnosis is crohn's disease which is often associated with perianal fistula formation].

121. A young child diagnosed with chicken pox. Usually goes to day care. What is the most appropriate advice?
A. Child should be admitted to hospital straight away
B. Isolate the child from parents and siblings at home
C. Advice that he can go back to nursery when the rash is crusted over

Ans. The key is C. Advice that he can go back to nursery when the rash is crusted over. [At this stage patient is no more infectious].

122. A 7-year-old boy is brought by his mother. There are multiple perioral and forehead vesicles. Some vesicles are crusted and some are not. The face is hot. What is the most likely diagnosis?
A. Varicella zoster
B. Herpes zoster
C. Fungal infection
D. Impetigo
E. Psoriasis

Ans. The key is D. Impetigo. [Distribution of varicella zoster (chickenpox) is centripetal that is mainly on trunk. Impetigo is mosty occurs centrifugally that is more on face and limbs. Impetigo also has characteristic of yellow or honey coloured scrub. Herpes zoster usually occurs in elderly and unlikely to occur in children].

123. A 5-year-old boy is rescued from a burning building and is presented to the emergency departmnt. He has 5% partial thickness burns over the arms and legs and had soot in the mouth and nose. His breathing has become noisy. What is the single most immediate management?
A. Nebulized adrenaline

B. Nebulized salmetarol and oxygen
C. Needle cricothyrodotomy
D. Oropharyngeal airway
E. Intubation of airway

Ans. The key is E. Intubation of airway. [Soot in the mouth and nose and noisy breathing occurs in inhalation injury where intubation of the airway is indicated].

124. A mother got infected with Hep B during pregnancy. Her child is born and she is worried about the risk of infection to the baby with Hep B. What would you give to the baby?
A. Hep B Ig only
B. Hep B full vaccine and Ig
C. Hep B vaccine only once
D. Nothing until immune status is checked
E. Hep B vaccine once and Ig

Ans. The key is B. Hepatitis B full vaccine and Ig.

125. A 9-year-old child doesn't play with his peers and has collected 200 cars. He doesn't respond to any criticism. What is the diagnosis?
A. Autism
B. Personality disorder
C. Schizophrenia
D. Rett syndrome
E. Social anxiety

Ans. The key is A. Autism.

126. A 6-monhs-old infant has breast milk jaundice. He is otherwise feeding well and is not dehydrated. What would his LFTs look like?
A. Total bilirubin:40, conjugated bilirubin<5%
B. Total bilirubin:300, conjugated bilirubin 85%
C. Total bilirubin:500, conjugated bilirubin>85%
D. Total bilirubin:400, conjugated bilirubin<85%

Ans. The key is A. Total bilirubin:40, conjugated bilirubin<5%. [Brest milk jaundice is characterized by indirect hyperbilirubinemia].

127. A child has developed rash after the treatment of penicillin. What will be the cause of rash?
A. Drug reaction
B. Kawasaki
C. Infectious Mononucleosis

Ans. The key is A. Drug reaction.

128. A child comes with recurrent joint pain, multiple bruises, swollen ankle and unable to move his legs. What is the investigation of choice?
A. ESR
B. RF
C. Clotting factors

Ans. The key is C. Clotting factors. [Probable diagnosis is hemarthrosis due to hemophilia].

129. A 3-year-old boy presents with difficulty in walking and skin lesions. What is the most likely causative agent?
A. Strep pyogenes
B. Rubella virus
C. Parvovirus
D. Papovirus
E. Paramyxovirus

Ans. The key is C. Parvovirus. [Sometimes there may occur arthropathy for which children gets difficulty to walk. There occurs macular morbiliform rash in parvovirus infection following disappearance of rash of the cheeks].

130. A 7-year-old boy presents with his mother to GP surgery. His mother describes he had presented this since 3 weeks ago. He had not experienced any trauma. No other symptoms along with the condition. Examination: non tender swollen ankles bilaterally. There is no rash or lesion. He is otherwise well. Which single test would be the best as an initial assessment?
A. Plasma electrolytes
B. Albumin
C. Total serum protein
D. Anti-streptolysin

Ans. The key is B. Albumin. [Likely cause of ankle oedema from hypoalbuminema].

131. A young boy presents with fever and cough. His father was diagnosed with TB a week ago. The parents don't want him to have a BAL under anesthesia. Which other samples can be taken for diagnosis?
A. Urine
B. Blood
C. CSF
D. Gastric washing
E. Sweat

Ans. The key is D. Gastric washing. [A young boy is able to cough up sputum unless it is dry cough where suspected TB is diagnosed by broncho-alveolar-lavage (BAL). As in dry cough TB bacteria contaminate saliva and goes to stomach with swallowed contaminated saliva Gastric-washing can bring out bacteria and detected thereby. So gastric-washing is an alternative to BAL in dry cough].

132. A 6-year-old girl is being investigated for renal failure. She is found to have a congenital abnormality of the insertion of the ureters into the urinary bladder. What is the single most likely cause for renal failure in this patient?
A. SLE
B. PKD
C. Wilm's tumor
D. Acute tubular necrosis
E. Reflux nephropathy

Ans. The key is E. Reflux nephropathy. [Reflux nephropathy is kidney damage (nephropathy) due to urine flowing backward (reflux) from the bladder toward the kidneys; the latter is called vesicoureteral reflux (VUR)].

133. A child came to the emergency department with severe asthma and not responding to salbutamol nebulizer and vomiting many times. What is the most appropriate management?
A. Salmetrol
B. Montelukast
C. Prednisolone
D. Budesonide inhaler
E. Oxygen
F. IV salbutamol

Ans. The key is F. IV salbutamol. [In acute attack there is no place for salmeterol. In the given case most appropriate management is IV salbutamol].

134. A 4-year-old child comes with a sprain in his foot. History reveals that the child has had recurrent admissions to the hospital due to severe asthma. What is the most appropriate analgesic?
A. Diclofenac sodium
B. Ibuprofen
C. Paracetamol
D. Codeine

Ans. The key is C. Paracetamol.

135. A girl presents with signs of hyperventilation. What is the most likely ABG derangement?
A. pH increased, PCO2 increased
B. pH decreased, PCO2 increased
C. pH increased, PCO2 decreased
D. pH decreased, PCO2 decreased

Ans. The key is C. pH increased, PCO2 decreased.

136. A 5-week-old breast fed baby whose birth weight was 3.5kg and is now 4.5kg is thriving well but is deeply jaundiced. What is the most likely diagnosis?
A. Galactosemia
B. Breast milk jaundice

C. Thalassemia
D. Sickle cell disease
E. Congenital storage disorder

Ans. The key is B. Breast milk jaundice. [Breast milk jaundice is a type of neonatal jaundice associated with breastfeeding. It is characterized by indirect hyperbilirubinemia, presents in the first or second week of life, and can persist for as long as 12 weeks before spontaneous resolution. There is normal thrive and weight gain. In galactosemia there will be lethargy, vomiting, diarrhea and failure to thrive].

137. A 4-year-old child presents with repeated chest infections. He has yellow discoloration of sclera and the mother gives a history of diarrhea as well. What is the single investigation most likely to lead to a diagnosis?
a. Sweat chloride test
b. Anti-endomysialantiboides
c. LFT (liver function test)
d. Jejunal biopsy
e. TFT (thyroid function test)

Ans. The key is A. Sweat chloride test. [Repeated chest infections, and jaundice suggests diagnosis of cystic fibrosis. In the hepatobiliary system which is damaged in about 25 to 30% of the cystic fibrosis patients, malfunctioning secretion can cause liver disease and gall stones, leading to pain and jaundice. For cystic fibrosis sweat chloride test can be done].

138. A newborn that is electively intubated at birth and is due for surgery 48hours after birth. The condition was suspected on antenatal US on CXR. What is the most likely diagnosis?
A. CF
B. Congenital diaphragmatic hernia
C. Congenital cystic adenomatoid malformation
D. RDS
E. Alpha 1 antitrypsin deficiency

Ans. The key is B. Congenital diaphragmatic hernia.

139. A mother brings her newborn to the hospital concerned about a blue patch on the buttocks. The newborn is of mixed race and was delivered normally. What is the most appropriate management?
A. Reassurance
B. CBC
C. XR
D. Plt count

Ans. The key is A. Reassurance. [The diagnosis is mongolian blue or spot. Mongolian spot refers to a macular blue-gray pigmentation usually on the sacral area of healthy infants. Mongolian spot is usually present at birth or appears within the first weeks of life. Mongolian spot typically disappears spontaneously within 4 years but can persist for life. It is a benign condition requiring no intervention].

140. A child suffering from CF (cystic fibrois) developed pneumonia. Which organism is responsible for this pneumonia?
A. H. influenza
B. Klebsiella
C. S. aureus
D. S. pneumonia
E. Pseudomonas

Ans. The key is S. aureus. [During the first decade of life of CF patients, Staphylococcus aureus and Hemophilus influenzae are the most common bacteria isolated from the sputum, but in the second and third decade of life, Pseudomonas aeruginosa is the prevalent bacteria].

141. A 5-year-old previously healthy child has a 1-day history of severe pain in the throat, breathing difficulties and fever. On examination you find an anxious, septic-looking child with drooling of saliva and stridor. Which is the most appropriate initial management?
A. Intubation under general anaesthesia
B. Insertion of nasogastric tube
C. Fluid resuscitation and antibiotics IV
D. Anteroposterior & lateral neck x-ray

Ans. The key is A. Intubation under general anesthesia. [Acute epiglottitis. Should intubate to save from closure of airway].

142. A previously healthy, 10 months female child presents to your clinic with a 1-day history of high fever, runny nose and conjunctivitis. The child looks unwell and is irritable. Examination: child's oropharynx shows that it is inflammed and there are small white spots on the oral mucosa. Which is the most likely diagnosis?
A. Kawasaki disease
B. Parvovirus infection
C. Herpes zoster
D. Measles

Ans. The key is D. Measles. [Koplick’s spots are characteristic of measles].

143. A 3 day term, breast-fed infant is brought by the mother who reports that the child has not been active and not feeding well. She also notices jaundice, which was not present at birth and is increasing. Examination: the temperature 35.4°C, and the liver is palpable 2 cm below the costal margin. Which is the most likely diagnosis?
A. Rhesus isoimmunisation
B. Inadequate breast milk
C. Congenital biliary tract obstruction.
D. Sepsis

Ans. The key is D. Sepsis. [Not active, not feeding well, increasing new onset jaundice and hypothermia are suggestive of neonatal sepsis].

144. A 6-year-old boy presented about 4 hour ago with acute severe pain on the testis with the left half slightly higher than the right. Pain was not relieved by any strong analgesic. What is the initial management?
A. Give strong analgesic
B. IV NS and monitor vital signs
C. Reassure
D. Immediate surgical referral
E. Cover with antibiotics

Ans. The key is D. Immediate surgical referral. [Diagnosis is torsion of testis].

145. A healthy 2-year-old boy is brought to the emergency department having cut his hand playing in the garden. He has a 2cm clean laceration. He has not received any routine immunizations as his parents are concerned about possible side effects. There are no contraindications to immunizations. What is the single most appropriate course of action?
A. Courses of DPT vaccine
B. Courses of DT
C. Single inj of DPT vaccine
D. Single inj of DT
E. Single inj of tetanus Ig

Ans. A. Courses of DPT Vaccine. [The child is unimmunized and has no contraindication to vaccination. Keeping in mind his age, single injections would be useless and would not help the patient. Courses of DPT vaccine would be the best choice in this case].

146. A 6 weeks child has history of frequent vomiting which became worse during the last weeks. He has no fever, recently he has passed stool only once every 2-3 days. What investigation will you do to confirm the diagnosis?
A. Abdominal US
B. Barium meal
C. Erect XR abdomen
D. Feed test
E. Reassure

Ans. The key is A. Abdominal US. [The age and symptoms points towards pyloric stenosis].

147. A healthy baby boy is born at term to a woman who was unwell with confirmed acute hepatitis B during pregnancy. The mother is very concerned that she may have infected the baby with hepatitis B. What SINGLE preventative intervention should be given to the baby?
A. Full course of hepatitis B vaccine
B. Hepatitis B immunoglobulin alone
C. Hepatitis B vaccine and hepatitis B immunoglobulin
D. Hepatitis B vaccine as single dose
E. None until hepatitis B status confirmed

Ans. The key is C. Hepatitis B vaccine and hepatitis B immunoglobulin. [Babies born to mothers infected with hepatitis B have a high risk of acquiring infection, which can be prevented by vaccination at birth.

All babies with seropositive mothers should have the full primary course of hepatitis B immunisation and should also have HBIG within 24 hours of birth].

148. A 4-year-old girl has had a temperature 38.5C for 2 days and has not wanted to eat her food. Yesterday she developed a sore throat and small, painful ulcers inside her mouth. Today she has small blisters on the palms of her hands and soles of her feet which are painful but not itchy. What is the SINGLE most likely underlying cause?
A. Coxsackie virus
B. Herpes simplex virus
C. Staphylococcus aureus
D. Streptococcus pneumonia
E. Varicella zoster virus

Ans. The key is A: coxsakie virus

Patient is suffering from HFMD (Hand,Foot and Mouth Disease)

- HFMD is due to an infection that usually causes a typical illness, including a typical rash. It is most commonly caused by the Coxsackie A16 virus

- HFMD most commonly affects children under 10 years of age

- This might include a high temperature (fever). After this, a sore throat commonly occurs, quickly followed by small spots that develop inside the mouth. These soon progress into small mouth ulcers

- In many cases, spots also develop on the skin. This is typically a day or so after the mouth ulcers develop. The spots are small lumps that are a few millimetres in diameter and usually appear on the hands and feet, they are not usually itchy but sometimes they can be a little bit sore.

Treatment:

There is no treatment that will take away the virus

149. An 8-year-old girl is complying with her asthma treatment of low-dose inhaled corticosteroid prophylaxis and short-acting bronchodilators as required. Her inhaler technique is good. She now has a frequent night cough and mild exercise-induced wheeze. What would be the SINGLE most appropriate change in her treatment?
A. Add leukotriene antagonist
B. Add oral theophylline
C. Add regular long-acting bronchodilator
D. Increase dose of inhaled corticosteroid
E. Short course of oral corticosteroid

Ans. The key is A. Add leukotriene antagonist. [According to latest NICE guideline].

150. A 4-year-old boy complains of pain around his right eye. He is unwell, febrile and also suffers from pain on the right side of his face. What is the most probable diagnosis?

A. Allergic reaction
B. Furuncle
C. Folliculitis
D. Foreign body
E. Periorbital cellulitis

Ans. The key is E. Periorbital cellulitis.

151. An infant is being examined as part of a routine examination. The child can hold its head up and lifts its chest off a table. He has a palmer and rooting reflex as well as a social smile. He is not afraid of strangers. What is the most likely age of this child?
A. neonate
B. 2 months
C. 6 months
D. one year
E. one and a half years
F. two years
G. four years
H. seven years
I. ten years
J. fourteen year

Ans. The key is C. 6 months. [At 6 months: 1. Gross motor skill- sits briefly without support; rolls from back to tummy. 2. Fine motor skill- passes a toy from one hand to another: bangs toy on table. 3. Self help skill- holds own bottle or cup during feedings. 4. Cognitive skill- reaches for a toy out of reach; likes to be with people. 5. Speech skill- begin to pronounce consonants like "ba," "da," and "ga". Starts to babble ("babababa"). Begins to recognize his or her own name. Understands a few words, such as "bath". Uses his or her voice to get attention and express feelings].

152. A mother is concerned because her 1m boy has a swelling in his scrotum. He was born prematurely. On examination the swelling is seen to transilluminate. The likely cause is?
A. Lymphogranuloma Venereum
B. Testicular Torsion
C. Hydrocele
D. Epididymitis
E. Seminoma
F. Mature teratoma
G. Varicocele
H. Lymphoma
I. Orchitis
J. Spermatocele

Ans. The key is C. Hydrocele. [Transilluminating scrotal swelling is likely a case of hydrocele. 1-2% neonates present with congenital hydrocele which disappears by 1-2 years].

153. A 2-month-old girl has an ante-natal diagnosis of right hydronephrosis. Postnatal serial US exams revealed increasing dilatation of the right pelvicalyceal system. No reflux was demonstrated on a MUCG. Appropriate management should include?

A. Surgical repair
B. Intermittent catheterization
C. Diuresis renography
D. Anticholinergic agents
E. Phenylpropanolamine
F. Gellhorn pessary
G. Biofeedback-assisted behavioral treatment
H. Oral Estrogen therapy
I. Vaginal Estrogen therapy
J. Ring pessary

Ans. The key is C. Diuresis renography. [Antenatal hydronephrosis and increasing postnatal hydronephrosis on US should go for Diuresis renography for evaluation of possible pyeloplasty].

154. A mother brings her 1-year-old infant to her pediatrician. She describes that following a common cold her child's voice has become hoarse and has developed a cough that sounds harsh and brassy and was worse at night. Examination: the child was noted to have trouble drawing air into its lungs between coughs and had trouble drawing air into its lungs. There was visible stridor on inhalation. The cause is most likely to be?
A. EBV
B. Rhinovirus
C. Parainfluenza
D. Flavivirus
E. HIV
F. Rotavirus
G. CMV
H. Kemerovo
I. Creutzfeld-Jacob
J. Rubella

Ans: Parainfuenza. [Parainfluenza virus causes croup. A rough barking cough with hoarsness and wheezing, labored breathing, runny nose, fever, cough, decreased appetitie are common features].

155. An infant has diarrhea for 3 days with weight loss from 10 kg to 9 kg. Examination: he is noted to have dry mucous membranes, poor skin turgor, markedly decreased urine output, and tachycardia. His BP=normal and compression-release of the nail beds shows satisfactory refilling. Appropriate treatment would include?
A. Plasmapheresis and plasma infusion
B. 0.5% Normal Saline
C. Lactated Ringer's injection
D. Packed cells
E. Whole blood
F. Platelets
G. FFP
H. double strength Normal Saline
I. 5% dextrose in 0.5N saline solution
J. IV heparin

Ans. The key is C. Lactated Ringer's injection. [Severe dehydration. Treatment is rehydration. For severe dehydration initially fluid bolus is given with either 0.9% normal saline or Lactated Ringers injection in IV route].

156. An 18-month-old girl who has had single UTI is seen in the OPD. She has fever and vomiting but these improved with course of trimethoprim. Subsequently, MCUG showed bilateral vesicoureteric reflux. Single most appropriate management?
A. Prophylactic antibiotics
B. Reassure
C. No treatment
D. Ureteric surgery

Ans. The key is D. Ureteric surgery.

157. A 4-year-old baby has a generalized tonic-clonic convulsions and fever of 39C. His mother informs you that this has happened 3-4 times ebfore. What is the most probable diagnosis?
A. Febrile convulsion
B. Absence seizures
C. Epilepsy
D. Partial complex seizure

Ans. The key is A. Febrile convulsion.

158. A 4-year-old girl who has had a runny nose for 12 hours has woken up 2'oclock in the morning with difficulty in breathing, a barking cough. What is the single most likely diagnosis?
A. Asthma
B. Bronchiectasis
C. Bronchiolitis
D. Bronchopulmonary dysplasia
E. Croup

Ans. E. Croup. [Age, runny nose, dyspnea, and barking cough are suggestive features of croup].

159. A 5-year-old girl who suffered from extensive burns has returned to the general ward after 2 weeks in the intensive care unit (ICU). She has a large hematemesis. Full blood count and coagulation screen are normal.

A. Coagulation screening
B. Computed tomography scan (CT scan)
C. Barium study of upper GI tract
D. Discriminate between fetal and maternal blood cells (APT test)
E. Endoscopy

Ans. The key is C. Barium study of upper GI tract. [In curling ulcer barium study is preferred as endoscopy has risk to cause perforation].

160. A 2-week-old boy born with cesarean section because of placental abruption vomits altered blood. He is well hydrated and systemically well.

A. Coagulation screening
B. Computed tomography scan (CT scan)
C. Barium study of upper GI tract
D. Discriminate between fetal and maternal blood cells (APT test)
E. Endoscopy

Ans. The key is D. Discriminate between fetal and maternal blood cells (APT test). [The alkali denaturation **test**, also known as **Apt**–Downey **test** or **Apt test**, is a medical **test** used to differentiate fetal or neonatal blood from maternal blood found in a newborn's stool or vomitus].

20. AIDS RELATED DISEASE

1. A patient presents with purple papular lesions on his face and upper trunk measuring 1-2 cm across. They aren't painful or itchy. What is the single most likely diagnosis?
   A. Kaposi's sarcoma
   B. Hairy leukoplakia
   C. Cryptosporidium
   D. CMV infection
   E. Cryptococcal infection

Ans. The key is A. Kaposis sarcoma. [It is a spindle-cell tumour derived from capillary endothelial cells or from fibrous tissue, caused by human herpes virus. It presents as purple papules (½ to 1 cm) or plaques on skin and mucosa (any organ). It metastasizes to nodes].

2. A Patient presents with fever, dry cough and breathlessness. He is tachypneic but chest is clear. Oxygen saturation is normal at rest but drops on exercise. What is the single most likely diagnosis?
   A. CMV infection
   B. Candida infection
   C. Pneumocystis carinii infection
   D. Cryptococcal infection
   E. Toxoplasma abscess

Ans. The key is C. Pneumocystis carinii infection. [Fever, dry cough, breathlessness, tachypnoea with clear chest is seen in pneumocystis carinii pneumonia. Normal oxygen saturation which drops on exercise is characteristic of pneumocystis carinii pneumonia].

3. A 40-year-old man with marked weight loss over the preceding 6months has bilateral white, vertically corrugated lesion on the lateral surfaces of the tongue. What is the single most likely diagnosis?
   A. C1 esterase deficiency
   B. Crohns disease
   C. HIV disease

D. Sarcoidosis
E. Sjogren's syndrome

Ans. The key is C. HIV disease. [The lesion described is leukoplakia which is likely association of HIV disease].

4. A 29-year-old man presents with history of cough, weight loss and night sweats. Exam: pansystolic murmur. What is the most appropriate diagnosis of underlying cause?
   A. Malaria
   B. HSP (Henoch-Schonlein Purpura)
   C. HIV
   D. Dengue fever

Ans. The key is C. HIV. [Though not mentioned IV drug abusers may have tricuspid regurgitation causing pansystolic murmur and HIV is also very common in this group].

5. A 32-year-old homosexual comes with history of weight loss. Fundoscopy reveals retinal hemorrhages. What is the single most appropriate option?
   A. Mycobacterium avium
   B. CMV (cytomegalo virus)
   C. Hemophilus influenze
   D. NHL (non hodgkin's lymphoma)
   E. Pneumocysticjerovici

Ans. The key is B. CMV. [Weight loss in a homosexual is likely to be due to AIDS and CMV retinopathy with retinal hemorrhage is a recognized association].

6. A 30-year-old patient came to the OPD (out patient department) with complaints of breathlessness and dry cough. He has lost 5 kg in 2 months. He is an IV drug abuser. Investigation: CXR bilateral interstitial shadowing. What is the single most likely causative organism?
   A. Klebsiella
   B. TB
   C. Chlamydia pneumonia
   D. PCP (pneumocystis carini pneumonia)
   E. Chlamydia psitacci

Ans. The key is D. PCP. [IV drug abuser, weight loss, breathlessness and dry cough with interstitial shadowing indicate PCP pneumonia in an AIDS patient].

7. A 34-year-old IVDA (intravenous drug abuser) presents with a 4 months history of productive cough. He has lost 10kgs. What is the single most appropriate investigation?
   A. Sputum for AFB
   B. Laryngoscopy
   C. Bronchoscopy
   D. CT neck
   E. CXR

Ans. The key is A. Sputum for AFB. [In IVDA immunity becomes low and easily gets infected with TB].

8. A HIV +ve55-year-old man presents with painless lymphadenopathy, fever, night sweats and weight loss. What is the most probable diagnosis?
   A. Hodgkin's lymphoma
   B. NHL
   C. ALL
   D. AML
   E. CML

Ans. The key is B. NHL. [NHL is more likely diagnosis in AIDS or immunodeficient state].

9. A 38-year-old woman with hemophilia who received several blood transfusions a few years ago presents with irritability and increasing memory deficit. She is unable to speak properly. She is on anti-TB treatment. What is the single most likely diagnosis?
   A. Creutzfeldt Jacob disease
   B. Drug toxicity
   C. Vascular dementia
   D. HIV associated dementia
   E. Space occupying lesion

Ans. The key is D. HIV associated dementia. [Blood transfision is the clue for HIV transmission. Immunodeiciency is also responsible for TB].

10. A 56-year-old man with known HIV presents with chronic diarrhea. What is the most likely cause?
    A. Cryptococcus infection
    B. Toxoplasmosis
    C. Pneumocystis carinii
    D. Cryptosporidium
    E. Herpes zoster

Ans. D. Cryptosporidium. [In AIDS patients common cause of diarrhea is cryptosporidium].

11. A 36-year-old lady who is an intravenous drug user has had weight loss for the past 4 months. He now presents with drowsiness and increasing confusion. What is the single most likely cause?
    A. Cryptococcus infection
    B. Toxoplasmosis
    C. Pneumocystis carinii
    D. Cryptosporidium
    E. Herpes zoster

Ans. The key is A. Cryptococcus infection. [Case of HIV. Cryptococcus can causes meningitis in AIDS patients].

COMPLETED

21. ETHICS

1. An elderly man who used to work in the shipyard industry presented with cough and SOB (shortness of breath) few weeks to months. He was given salbutamol nebulization and antibiotics and admitted to the ward. He died 3days later. CT thorax: patchy infiltrates, pleural thickening and pleural effusion. Why is this a coroner's case?
   A. Patient got wrong diagnosis or management
   B. Patient died soon after admission
   C. Death could be due to occupational illness

Ans. The key is C. Death could be due to occupational illness.

2. A man with dementia has an ulcerative lesion on his forehead. He wants it removed so 'it can help improve his memory'. Wife says he is not fit to give consent. What will you do?
   A. Get letter signed from the GP
   B. Get letter signed from the wife
   C. Get letter signed from the patient
   D. Refer to psychiatrist to assess the mental capacity to give consent

Ans. The key is D. Refer to psychiatrist to assess the mental capacity to give consent.

3. A 78-year-old patient is diagnosed with metastatic lung cancer; there is no cure for his condition. His son tells the physician that in the case of a diagnosis of cancer, the physician must not tell his father. He wishes that his father does not suffer any psychological distress caused by the knowledge of a terminal diagnosis. Which one of the following ethical principles supports the son's request?
   A. Patient autonomy
   B. Beneficence
   C. Justice
   D. Non-maleficence

Ans. The key is D. Non-maleficence. [Nonmaleficence means non-harming or inflicting the least harm possible to reach a beneficial outcome].

COMPLETED

22. ORTHOPAEDICS

1. A 53-year-old female presents with an acute painful hot knee joint. She is a known case of RA (rheumatoid arthritis). On examination, the knee is red, tender and swollen. The hamstring muscles are in spasm. Her temperature is 38.5C and BP is 120/80mmHg. What is the SINGLE best next investigation?

A. Joint aspiration for cytology and culture and sensitivity
B. Joint aspiration for positive birefrengent crystals
C. Joint aspiration for negative birefrengent crystals
D. Blood culture
E. Serum uric acid

Ans. The likely key is A. Joint aspiration for cytology and culture and sensitivity. [Case of septic arthritis. Any chronically arthritic joint is predisposed to infection. Moreover chronic use of steroid in Rh. arthritis is one of the important predisposing factor. In this age group likely organism is Staphylococcus. In younger age group Neisseria gonorrhea is more common].

2. A patient with an acute gout attack came to the emergency department. What drug should be given to relieve symptoms?
   A. NSAIDs
   B. Allopurinol
   C. Ibuprofen

Ans. The key is A. NSAIDs. [Oral NSAIDs commenced immediately and continue for 1 – 2 weeks; Colchicine can be effective alternative but is slower to work than NSAIDs. Intra articular corticosteroids are highly effective in acute gouty monoarthritis].

3. A young boy fell on his outstretched hand and has presented with pain around the elbow. He has absent radial pulse on the affected hand. What is the most likely diagnosis?
   A. Dislocated elbow
   B. Angulated supracondylar fracture
   C. Undisplaced fracture of radial head
   D. Posterior dislocation of shoulder

Ans. The key is B. Angulated supracondyllar fracture. [Damage or occlusion of the bracheal artery is the cause of absent radial pulse. Often closed reduction results in restoration of normal anatomy and correction of occlusion of bracheal artery and establishes circulation again but in few instances open reduction is required to fix the occluded artery].

4. A 23-year-old woman has been having pain at the base of her thumb, the pain is reproduced when lifting her 3 month old baby or changing diapers and also with forceful abduction of the thumb against resistance. What is the likely cause?
   A. Avascular necrosis of scaphoid
   B. Trigger finger.
   C. De Quervain’s tenosynovitis

Ans. The key is C. De Quervain’stenosiovitis. [Can be diagnosed by Finkelstein’s test: The physician grasps the thumb and the hand is ulnar deviated sharply. If sharp pain occurs along the distal radius (top of forearm, about an inch below the wrist), de Quervain's syndrome is likely].

5. A 78-year-old male with diabetes mellitus and hypertension, had a fall and since then is unable to walk. He presents withdeformity and tenderness over the right hip area. X-Ray shows fracture of femur neck. What is the single mostassociated nerve injury?

A. Sciatic nerve
B. Gluteal nerve
C. Lateral peroneal nerve
D. Tibial nerve
E. Femoral nerve

Ans. The key is A. Sciatic nerve. [Sciatic nerve injury though may occur but may not be very common!]

6. A 37-year-old female had a fall with outstretched hand, presented with dinner fork deformity and tenderness over the right arm. What is the single most associated nerve injury?
   A. Axillary nerve
   B. Radial nerve
   C. Musculocutaneous nerve
   D. Median nerve
   E. Ulnar nerve

Ans. The key is D. Median nerve. [Median nerve is the nerve injured in Colle's fracture].

7. A pregnant woman with longterm history of osteoarthritis came to the antenatal clinic with complaints of restricted joint movement and severe pain in her affected joints. What is the choice of drug?
   A. Paracetamol
   B. Steroid
   C. NSAID
   D. Paracetamol+dihydrocoiene
   E. Pethadine

Ans. The key is A. Paracetamol.

8. A 6-year-old fell on outstretched hand while playing. He feels tender at the elbow but otherwise well. What is the most likely diagnosis?
   A. Spiral fracture
   B. Green stick fracture
   C. Compound fracture
   D. Supracondylar fracture
   E. Pulled elbow

Ans. The key is B. Green stick fracture.

9. A 15-year-old boy presents with a limp and pain in the knee. Examination: leg is externally rotated and 2cm shorter. There is limitation of flexion, abduction and medial rotation. As the hip is flexedexternal rotation is increased. Choose the most likely diagnosis?
   A. Juvenile rheumatoid arthritis
   B. Osgood-schlatter disease
   C. Reactive arthritis
   D. Slipped femoral epiphysis
   E. Transient synovitis of the hip

Ans. The key is D. Slipped femoral epiphysis. [The given presentation is classic for slipped femoral epiphysis].

10. A 60-year-old woman presents with acute onset of bone and back pain following a rough journey in a car. Examination: tenderness at mid-thoracic vertebra with spasm, she feels better once she bends forward. What is the single most probable diagnosis?
    A. Osteoporotic fracture verterbra
    B. Myofacial pain
    C. Whiplash injury
    D. MI
    E. Pancreatitis

Ans. The key is B. Myofacial pain. [Myofascial pain syndrome is a chronic pain disorder. In myofascial pain syndrome, pressure on sensitive points in your muscles (trigger points) causes pain in seemingly unrelated parts of your body. This is called referred pain. Myofascial pain syndrome typically occurs after a muscle has been contracted repetitively].

11. A 12-year-old boy with a history of fall on an outstretched hand was brought to the emergency department with swelling and pain around the elbow. His radial nerve was affected. What is the type of fracture?
    A. Angulated fracture
    B. Epiphyseal fracture
    C. Compound fracture
    D. Spiral fracture

Ans. The key is A. Angulated (supracondylar fracture). [Around 50% interosseous nerve lesions occur in supracondylar fracture whereas 25% shows radial nerve damage. If the fracture is spiral fracture of lower third of humerus it causes nerve damage in 18% almost all of which are radial nerve lesion. However as the fracture is around the elbow (not above) it is supracondylar fracture].

12. A 16-year-old boy following a RTA was brought to the emergency department with a swelling and deformity in his right thigh. Examination: airway is patent and is found to have a pulseless leg. Which structure is involved in this fracture?
    A. Femoral artery
    B. Posterior tibial artery
    C. Common peroneal nerve
    D. Dorsalis pedis

Ans. The key is A. Femoral artery.

13. A 60-year-old man has had spontaneous painful swelling of his right knee for 3 days. 5 days prviously he had an inguinal hernia repaired as a day case. He takes bendroflumethiazide 2.5mg daily. He is apyrexial. What is the single most appropriate diagnostic investigation?
    A. Blood culture
    B. CRP
    C. D-dimer
    D. XR knee

E. Serum uric acid

Ans. The key is E. Serum uric acid. [Thiazide diuretics causes hyperuicemia which can precipitate acute attack of gout].

14. A 30-year-old lady was playing volleyball when her hand got injured with the ball. The right hand is not swollen and there is tenderness under the root of the thumb. X-ray is normal. What is the most appropriate next management?
    A. Arm sling for 1 week
    B. Raise hand for 2d
    C. Repeat XR
    D. Full arm cast

Ans. The key is C. Repeat X-ray. [Likely diagnosis is scaphoid fracture where X-ray may not show the fracture right away. In such case put her hand in a below elbow cast and repeat X-ray in a week or two to see if the fracture become visible. Usually it becomes visible as a healing fracture line].

15. A 10-year-old child who presented with fracture of the radius which was treated with a plaster cast, complains of pain. Examination: limb is swollen but warm and well perfused, pulses are present. What should you do next?
    A. Send for repeat XR
    B. Remove cast
    C. Replace cast with more padding
    D. Give analgesic

Ans. Key is D. Give analgesic. [This is not compartment syndrome.So next step is analgesia].

16. A 22-year-old man came to the hospital after an injury in his hand while playing basketball. Examination: avulsion of extensor tendon from the distal phalanx. What is the single most probable deformity?
    A. Dinner fork deformity
    B. Game keeper thumb
    C. Mallet finger
    D. Gun-stock deformity
    E. Garden spade deformi

Ans. The key is C. Mallet finger. [A finger that bends down at the end joint and cannot be straightened is called a mallet finger. It is caused by an injury to the extensor tendon that straightens (extends) the finger. A splint worn day and night for 6-8 weeks will cure the problem in most cases].

17. A 35-year-old male typist who suffered a scaphoid fracture was treated with a scaphoid cast. After 2 weeks when the cast was removed for a review X-ray, it was found that he had problems in moving the thumb, index and middle fingers. What would you suggest as the management for the recent problem?
    A. Release of flexor retinaculum
    B. Release of common flexor sheath
    C. Release of palmar sheath

D. Ulnar nerve release
E. Fasciotomy

Ans. The key is A. Release of flexor retinaculum. [Now he developed carpal tunnel syndrome (median nerve compression)].

18. A 35-year-old male who recently had an appendicectomy has got severe pain in his right big toe. Joint is red and swollen. He consumes 30 units of alcohol/week. What is the most probable diagnosis?
    A. Rhabdomyosarcoma

    B. Osteoarthritis

    C. Gout
    D. Pseudogout
    E. Arthritis

Ans. The key is C. Gout. [Alcoholic drinks can raise the level of uric acid in the blood].

19. A 25-year-old male who recently noticed change in his shoe size, he is also constipated, has a preference to hot weather, his skin is dry, has severe pain in wrist joint. Joint is red and swollen. What is the most probable diagnosis?
    A. Chondro-sarcoma
    B. Lipo-sarcoma
    C. Gout
    D. Pseudogout
    E. Ankylosing spondylitis

Ans. The key is D. Pseudogout. [Hypothyroidism (change of shoe size due to myxedema or pedal oedema can be seen in hypothyroidism) , other features of constipation, cold intolerance, dry skin are well known features of hypothyroidism.) Pseudogout has well recognized association with hypothyroidism].

20. A 20-year-old fit man suddenly developed severe lower back pain as getting up from bed. What is the single most probable diagnosis?
    A. Paget's disease
    B. Multiple myeloma
    C. PID (prolapsed intervertebral disc)
    D. AS (ankylosing spondylitis)
    E. Spondylosis

Ans. The key is C. PID [Prolapsed Intervertebral Disc]. [Sudden onset of lower back pain and felt more during forward bending or similar movement like getting up from bed favours the diagnosis of PID].

21. A 60-year-old man brought to the emergency department with fracture hip, he is deaf and has bilateral pedal edema. What is the single most probable diagnosis?
    A. Paget's disease
    B. Osteoporotic fracture vertebra

C. Secondary
D. Multiple myeloma
E. Spondylosis

Ans. The key is A. Paget's disease. [H/O deafness and evidence of heartfailure like pedal edema favours the diagnosis of Paget's disease].

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22. An 80-year-old lady presents with pain on left 6th rib for a week. It is non-tender on examination. What is your most likely diagnosis?
    A. Herpes zoster
    B. Costochondritis
    C. Bone degeneration
    D. Thoracic vertebra compression

Ans. The key is C. Bone degeneration.

23. A 63-year-old female with a history of osteoporosis suddenly falls on her outstretched hand while shopping. X-ray shows fracture at distal radius with backward shift of the distal fragment. What is the single most probable deformity?
    A. Dinner fork deformity
    B. Coxavara
    C. Mallet finger
    D. Cubitus valgus
    E. Garden spade deformity

Ans. The key is A. Dinner fork deformity.

24. A woman with a previous history of pain at the left wrist following a fall 4 months ago for which she didn't seek any treatment now presented with pain in the same wrist below the thumb and the pain is aggravated whenever she holds her baby. What is the cause?
    A. Fracture radial head
    B. Scaphoid fracture
    C. Carpal tunnel syndrome
    B. Colles fracture
    E. Ulnar fracture

Ans. The key is B. Scaphoid frature.

25. A 67-year-old man presents to the emergency department with pain in his left groin. He suddenly collapses and he is not able to move or lift his leg. He is on alendronate. What is the diagnosis?
    A. Fx of neck of femur
    B. Post hip dislocation
    C. Fx of shaft of femur
    D. Pelvic base fracture

E. Peripheral vascular disease

Ans. The key is A. Fracture neck of femur. [Use of alendronate indicates osteoporosis where fracture neck of femur is more common].

26. A woman came with the complaint of pain in her right arm when she abducts it. She has recently moved to a new house. There is no history of trauma. Wht is the likely cause of her pain?
    A. Rupture of the long head of biceps
    B. Sprain of the acromio-clavicular ligament
    C. Tendinitis of the abductor sheat
    D. Supraspinatus tendinitis
    E. Shoulder dislocation

Ans. The key is D. Supraspinatus tendinitis. [Tendinitis and partial tears in the supraspinatus tendon causes a 'painful arc' since as the person elevates his arm sideways, the tendon begins to impinge under the acromion throught the middle part of the arc, and this is usually relieved as the arm reaches 180 degrees (vertical)].

27. A 19-year-old boy comes to the emergency department with pain, swelling and tenderness 2cm distal to Lister's tubercle of radius. Examination: proximal pressure on the extended thumb and index finger is painful. X-ray: no fracture. What is the next appropriate management for the patient?
    A. Immobilization with cast
    B. Repeat XR
    C. MRI
    D. Surgery
    E. None

Ans. The key is C. MRI. [Imaging: Request a dedicated 'scaphoid' series. If –ve, and fracture is suspected MRI has been shown to be sensitive and cost-effective. CT is an alternative. If neither is available, cast and re-x-ray in 2 weeks. Ref: OHCS, 9th edition, page-744].

28. A young man's arm was caught in a machine. X-ray showed no fracture but arm is very swollen. What is the best treatment?
    A. Plaster cast
    B. Wide splint with upward position
    C. Analgesics
    D. Antibiotics
    E. Tetanus prophylaxis

Ans. The key is B. Wide splint with upward position. [If the limb is kept hanging it will aggravate the swelling as fluid shifts to dependant part. Here wide splint with upward position will help the accumulated blood or fluid to move down and will improve the swelling].

29. A 6-year-old boy fell in the playground and has been holding his forearm complaining of pain. Examination: no sign of deformity or swelling. However, there is minimal tenderness on examination. What is the diagnosis?

A. Fracture mid radius
B. Fracture mid ulnar
C. Fracture neck of humerus
D. Fracture shaft of humerus
E. Green stick fracture of distal radius

Ans. The key is E. Green stick fracture of distal radius.

30. A young woman fell and hit her knee. Examination: valgus test +ve. What ligament was most probably injured?
    A. Ant cruciate
    B. Medial collateral
    C. Lateral collateral
    D. Post cruciate
    E. Meniscus

Ans. The key is B. Medial collateral. [The valgus stress test involves placing the leg into extension, with one hand placed as a pivot on the knee. With the other hand placed upon the foot applying an abducting force, an attempt is then made to force the leg at the knee into valgus. If the knee is seen to open up on the medial side, this is indicative of medial collateral ligament damage].

31. A pregnant woman presents with knee pain on movements. The pain becomes worse at the end of the day. Radiology shows decreased joint space. Laboratory investigation: CRP=12. What is the 1st line medicine?
    A. Paracetamol
    B. NSAIDs
    C. Oral steroid
    D. Intra articular steroid
    E. DMARDs

Ans. The key is A. Paracetamol. [Pain on movement, pain worse at end of day and decreased joint space are characteristic of osteoarthritis supported by NO significant raise in inflammatory marker (CRP=12). 1st line medicine is paracetamol].

32. A 60-year-old woman presented with radial fracture and had a colle's fracture and supracondylar fracture in the past. What investigation is required to detect her possibility of having the same problem later?
    A. Dexa scan
    B. MRI
    C. Nuclear bone scan
    D. CT
    E. Bone biopsy

Ans. The key is A. Dexa scan. [The likely cause of these multiple fracture is osteoporosis (post menopausal women) for which we should do Dexa scan to establish the diagnosis].

33. A 48-year-old man presents with bone pain. Laboratory: ALP high, phosphate normal. What is the most likely diagnosis?
    A. Osteoporosis
    B. Osteomalacia
    C. Paget's disease
    D. Fracture
    E. Myeloma

Ans. The key is C. Paget's disease. [Bone pain, high ALP and normal phosphate are suggestive of pagets disease. In osteoporosis Ca+, $PO4^{3}$- and ALP are normal. In osteomalacia Ca+ low, $PO4^{3}$- low and ALP is high. In Pagets disease Ca+ and $PO4^{3}$- normal and ALP markedly raised].

34. A 60-year-old female has pain and stiffness in her right hip joint. Pain is not severe in the morning but increases as the day progresses. She has noticed some nodules in her hands. Investigations: Hb low. What is the most probable diagnosis?
    A. RA (Rheumatoid arthritis)
    B. Osteoarthritis
    C. Gout
    D. Pseudogout
    E. Multiple myeloma

Ans. The key is B. Osteoarthritis. [Stiffness and pain of right hip increasing as the day progresses, nodules in hands (Hebarden or Bouchard's nodes), anemia (probably secondary to prolonged NSAIDs use) indicates osteoarthritis].

35. A 30-years-old female has chronic diarrhea, mouth ulcers and skin tags. She complains of visual problems, low back pain and morning stiffness. Investigations: ESR & CRP raised, Hgb 10mg/dl. What is the most probable diagnosis?
    A. SLE
    B. Reactive Arthritis
    C. Gout
    D. Pseudogout
    E. Seronegative arthritis

Ans. The key is E. Seronegative arthritis. [Chronic diarrhea, mouth ulcers and skin tags are features of IBD. There is a well known association between IBD and seronegative arthritis (particularly AS). Here low back pain, visual problem, morning stiffness, raised ESR and CRP, low hemoglobin indicates the diagnosis of Seronegative arthritis].

36. An elderly man with recently diagnosed HF (heart failure) has been treated with diuretics. He now develops severe joint pain in his left ankle with swelling and redness. What is single most likely investigatin?
    A. XR of bone
    B. Plasma RF
    C. Joint fluid uric acid crystals
    D. ESR

Ans. The key is C. Joint fluid uric acid crystals. [Thiazide diuretics may increase uric acid levels in blood causing or precipitating gout and joint fluid may show uric acid crystals].

37. A 60-year-old lady with a history of HTN and suffering from RA since the last 10 years now presents with hot, swollen and tender knee joint. What investigation would you do for her?
    A. XR
    B. C&S of joint aspirate
    C. US
    D. MRI
    E. CT

Ans. The key is B. C&S of joint aspirate. [RA itself is a risk factor for joint infection and there are possibilities to increase the chance of septic arthritis with the use of probable steroid which lowers immunity and further facilitates infection of joints for which C&S of joint aspirate should be done].

38. An 80-year-old woman fell over at her nursing home. X-ray shows fracture of radius with <10degree of dorsal angulation. What is the single most appropriate treatment?
    A. Below elbow full plaster of paris
    B. Below elbow split plaster of paris
    C. Closed reduction of fracture
    D. Elasticated support bandage
    E. Open reduction and internal fixation

Ans. The key is C. Closed reduction of fracture.

39. A 32-year-old woman presents with complaints of having low back pain. She is taking analgesics for it. All investigations are normal. What will you advice her?
    A. Bed rest
    B. Physiotherapy
    C. Advice to be more active
    D. Admit

Ans. C. Advice to be more active.

40. A 34-year-oldlabourer developed severe pain in his lower back after lifting a sack of sand. He also complains of shooting pain down his leg. The GP has prescribed him complete bed rest, with painkillers and also scheduled an MRI for him. What is the most likely diagnosis?
    A. Peripheral vascular disease
    B. Intervertebral disc prolapse
    C. Hairline fx of the spine
    D. Sprain of the back muscles
    E. Muscle injury

Ans. The key is B. Intervertebral disc prolapse. [Intervertebral disc prolapsed can cause severe back pain following heavy lifting and radiculopathy (pressure on spinal nerve root) can cause this shooting pain which can be demonstrated by MRI spine].

41. A 34-year-old man sustains a fracture to shaft of femur after falling from the roof of his house. Examination: distal pulses are not palpable. Which vessel is damaged?
    A. Femoral artery
    B. Circumflex femoral artery
    C. Profundafemoris artery
    D. Popliteal artery
    E. Obturator artery
    F. Dorsalispedis artery

Ans. The key is A. Femoral artery.

42. A 66-year-old man has renal colic. He has also presented with acute onset pain in his knee in the past. What is the single most likely cause for renal failure?
    A. SLE associated GN
    B. Hypercalcemia
    C. HTN
    D. Hyperuricemia
    E. Hyperoxaluria

Ans. The key is D. hyperuricemia. [Knee pain is due to gout and renal colic may occur from uric acid stone (urate stone)].

43. An 11-year-old boy came to the hospital with pain after falling off his bicycle. X-ray shows fracture at distal radius with forward angulations. What is the single most probable diagnosis?
    A. Dinner fork deformity
    B. Cubitus valgus
    C. Gun stock deformity
    D. Garden spade deformity
    E. Genu valgus

Ans. The key is D. Garden spade deformity. [Garden spade deformity is seen in Smith fracture. A Smith fracture is a break to the end of the radius. The end part of the bone, which forms part of the wrist joint, is displaced or angled in the direction of the palm of the hand. Often, this injury occurs by a fall to the back of a flexed wrist but can occur in any fall to an outstretched hand].

44. A 28-year-old male complains of severe pain while trying to grasp any object. It started since he participated in skiing and had a fall and caught his thumb in the matting. Examination: rupture of the ulnar collateral ligament of MCP joint of the thumb. What is the single most probable deformity?
    A. Dinner fork deformity
    B. Game keeper thumb
    C. Mallet finger
    D. Gun stock deformity
    E. Garden spade deformity

Ans. The key is B. Game keeper thumb. [Gamekeeper's thumb is an insufficiency of the ulnar collateral ligament (UCL) of the metacarpophalangeal (MCP) joint of the thumb].

45. A 25-year-old male had an injury to the knee while playing football. X-ray shows condylar fracture of tibia. What is the single most probable deformity?
    A. Dinner fork deformity
    B. Gibbus
    C. Cubitus valgus
    D. Garden spade deformity
    E. Genu valgus

Ans. The key is E. Genu valgus.

46. A 2-year-old fell on outstretched hand on playground. He presents with pain on base of the thumb. X-ray shows no fracture. What is the single most likely diagnosis?
    A. Colles fracture
    B. Head of radius
    C. Mellet finger
    D. Scaphoid fracture
    E. No fracture

Ans. The key is D. Scaphoid fracture. [Scaphoid fracture is often missed in initial x-ray].

47. A 65-year-old woman with DM, hypertension and normal kidney function underwent a total right hip replacement. She had massive haemorrhage during the operation and was given 8 units of packed RBC. The blood pressure dropped to 60/40 mm Hg for about two hours before it was corrected with blood transfusion. Two days after the surgery the serum creatinine level rose to 4.2 mg/dl (normal <1.5 mg/dl), BUN was 50 mg/dl (normal 10-20 mg/dl) and potassium 5.0 mmol/L (normal 3.5-5.0 mmol/l). There were brown granular casts in the urine sediment. Which is the most likely cause of this complication?
    A. Diabetic nephropathy
    B. Malignant hypertension
    C. Acute tubular necrosis
    D. Interstitial nephritis

Ans. The key is C. Acute tubular necrosis. [Hypotension even for some minutes or few hours can readily lead to acute tubular necrosis which is evident here by uremia and further supported by brown granular cast in the urine sediment].

48. A 3-year-old boy is playing with his brother when he falls. He cries immediately and refuses to walk. His mother carries him to hospital. He had a full term NVD (normal vaginal delivery) with no neonatal complications. His immunisations are up to date. Examination: looks well and well-nourished, no dysmorphic features. He has slight swelling, warmth and discomfort on the lower 1/3 of the left tibia, and refuses to weight bear. AP and lateral x rays of the tibia are normal. What is the most likely diagnosis?
    A. Ankle fracture
    B. Ankle sprain
    C. Fibular fracture
    D. Knee dislocation
    E. Tibial fracture

Ans. The key is E. Tibial fracture. [Toddler's fracture

- Undisplaced spiral fractures of the tibial shaft in children under 7 years old often follow minimal trauma and may not be visible on initial X-ray.
- Can be difficult to diagnose but should be suspected whenever a child presents with a limp or fails to bear weight on the leg.
- Treatment consists of immobilisation for a few weeks to protect the limb and to relieve pain.
- Subperiosteal bone formation is usually apparent on X-rays by two weeks].

49. A 24-year-old woman fell and injured her right knee. The knee is swollen and tender to valgus stressing. Which of the following ligament is the most likely to have been damaged?
    A. Anterior cruciate
    B. Lateral collateral
    C. Medial collateral
    D. Oblique popliteal
    E. Posterior

Ans. C. Medial collateral. [Positive valgus stress test indicate medial collateral rupture].

50. A 70-year-old man who is on bendroflumethiazide develops an acute swelling of his right knee. What is the single most appropriate diagnostic investigation?

A. Serum uric acid
B. Reactive protein
C. D-dimer
D. Blood culture
E. Plain X-ray of the knee

Ans. A. Serum uric acid. [Bendroflumethiazide can cause hyperurecemia leading to gout].

23. SURGERY

1. A lady presents with itching around the breast and greenish foul smelling discharge from the nipple. She had a similar episode before. What is the most likely diagnosis?
    F. Duct papilloma
    G. Duct ectasia
    H. Breast abscess
    I. Periductal mastitis
    J. Mammary duct fistula

    Ans. The key is B. Duct ectasia. [Duct ectasia of the breast or mammary duct ectasia or plasma cell mastitis is a condition in which the lactiferous duct becomes blocked or clogged. This is the most common cause of greenish discharge. Mammary duct ectasia can mimic breast cancer. It is a disorder of peri or post menopausal age].

2. A 50-year-old patient is admitted for elective herniorraphy. Which of the following options will lead to a postponement of the operation?
   A. SBP 110mmHg
   B. MI 2 months ago
   C. Hgb 12g/dl
   D. Pain around hernia
   E. Abdominal distention

Ans. The key is B. MI 2 months ago. [After MI elective surgery should not be done before 6 months post MI, as operation in earlier than this time has significant increase in mortality].

3. A lady with breast cancer has undergone axillary LN clearance. She develops arm swelling after being stung by a bee. What is the most likely mechanism responsible for the swelling?
   A. Lymphedema
   B. Cellulitis
   C. Hypersensitivity reaction
   D. DVT
   E. Fluid retention

Ans. The key is A. Lymphoedema. [Reason is compromised lymphatic drainage of arm due to axillary LN clearance. So if there is any inflammation or swelling, lymph drainage is compromised further giving rise to swelling of limb of that operated side].

4. A 34-year-old patient presents with 50% partial thickness burns. What should be the most appropriate management?
   A. IV fluids calculated from the time of hospital arrival
   B. IV fluids calculated from the time of burn
   C. No IVF
   D. IV dextrose stat
   E. Burns ointment

Ans. The key is B. IV fluids calculated from the time of burn.

5. A man presented with cellulitis and swelling. He was started on flucloxacillin. What other medication do you want to add?
   A. Vancomycin
   B. Penicillin
   C. Metronidazole
   D. Ceftriaxone
   E. Amoxicillin

Ans. The key is B. Penicillin. [Cellulitis is usually caused by staphylococcus and streptococcus. To cover both Flucloxacillin (for staphylococcus) and Penicillin (to cover streptococci) should be prescribed].

6. A man has reducible bulge below the pubic tubercle, and on occlusion of the deep inguinal ring, cough impulse is present. What is the most likely diagnosis?
   A. Direct inguinal
   B. Indirect inguinal
   C. Femoral
   D. Spigelian
   E. Lumbar

Ans. The key is C. Femoral hernia. [It is just below the pubic tubercle that is just below the inguinal ligament. On occlusion of deep ring cough impulse is present (means visible) as femoral hernia doesn't come through deep ring but indirect inguinal hernia].

7. A man with anterior resection and end to end anastomosis done complains of severe pain in the chest and abdominal distension. What is the most appropriate investigation likely to review the cause this deterioration?
   A. XR abdomen
   B. Exploratory laparoscopy
   C. CT
   D. US
   E. Laparotomy

Ans. The key is C. CT. [As many anastomotic leak is self-limiting so laparotomy is not done unless indicated otherwise. Definitive diagnosis is made by CT scan].

8. A 35-year-old male builder presented with sudden onset of severe abdominal pain. He was previously fit and well other than taking ibuprofen for a long term knee injury. On examination he is in severe pain, pulse 110bpm, BP 110/70mmHg and has a rigid abdomen. What is the most likely diagnosis?
   A. Biliary peritonitis
   B. Ischemic colon
   C. Pancreatic necrosis
   D. Perforated diverticulum
   E. Perforated peptic ulcer

Ans. The key is E. Perforated peptic ulcer. [NSAIDs induced perforation. Points in favour- 1. Prolonged use of NSAIDs, 2. Sudden onset of severe abdominal pain, 3. Rigid abdomen].

9. A woman 5 days post-operative for bilateral salphingo-oopherectomy and abdominal hysterectomy has developed abdominal pain and vomiting along with abdominal distension and can't pass gas. No bowel sounds heard, although well hydrated. What is the most appropriate next step?
   A. XR abdomen
   B. Exploratory laparoscopy
   C. CT

D. USG
E. Barium enema

Ans. The key is A. X-ray abdomen. [The diagnosis is paralytic ileas. Causes of paralytic ileus: i) electrolyte imbalance ii) gastroenteritis iii) appendicitis iv) pancreatitis v) surgical complications and vi) certain drugs. Management of paralytic ileus: i) nil by mouth ii) nasogastric suction to alleviate the distension and remove the obstruction].

10. A 22-year-old woman with longstanding constipation has severe ano-rectal pain on defecation. Rectal examination: impossible due to pain and spasm. What is the most probable diagnosis?
    A. Anal hematoma
    B. Anal fissure
    C. Anal abscess
    D. Protalgia fugax
    E. Hemorrhoids

Ans. The key is B. Anal fissure.

11. A 60-year-old smoker presents with cramp-like pain in the calves relived by rest and non-healing ulcers. Examination: cold extremities with lack of hair around the ankles, absent distal pulses. What is the most probable diagnosis?
    A. Intermittent claudication
    B. Chronic ischemia of the limbs
    C. Buerger's disease
    D. DVT
    E. DM

Ans. The key is B. Chronic ischaemia of the limb. [Intermittent claudication is a symptom not diagnosis. It is not buerger's disease as buerger occur in more younger heavy smoker (before the age of 50yrs), It is not DVT as dvt pain or tenderness is not of an intermittent claudication pattern. Though diabetes can cause peripheral vascular disease, the history of smoking and given clinical picture is more consistent with chronic ischemia of limb].

12. A 35-year-old woman had an uneventful laparoscopic cholecystectomy 18 hours ago. She has a pulse 108 bpm, temperature 37.8 C. There are signs of reduced air entry at the right base but the CXR doesn't show an obvious abnormality. What is the most appropriate management strategy?
    A. Cefuroxime PO
    B. Ceftriaxone IV
    C. Chlorpheniramine PO
    D. Chest physiotherapy
    E. Reassure

Ans. The key is D. Chest physiotherapy [Atelectasis can be seen in chest x-ray but sometimes it becomes undetectable in chest x-ray as we are suspecting in this case].

13. A 60-year-old patient recovering from a surgery for toxic goiter is found to be hypotensive, cyanosed in the the RR (recovery room). Examination: tense neck. There is blood oozing from the drain. What is the most likely diagnosis?
    A. Thyroid storm
    B. Reactionary hemorrhage
    C. Secondary hemorrhage
    D. Primary hemorrhage
    E. Tracheomalacia

Ans. The key is B. Reactionary haemorrhage. [in the recovery room, cyanosis, hypotension, tense neck, woozing of blood from drain, all these goes in favour of reactionary haemorrhage. "reactionary," hemorrhage that occurs within the first 24 hours after surgery].

14. A 49-year-old patient presents with right hypochondriac pain. Investigation show a big gallstone. What is the most appropriate management?
    A. Lap Cholecystectomy
    B. Reassure
    C. Low fat diet
    D. Ursodeoxycholic acid
    E. Emergency laparotomy

Ans. The key is A. Lap Cholecystectomy. [As symptomatic only reassurence is not appropriate ii) as big stone ursodyoxycholic acid is less effective iii) less invasiv is preferred so laparoscopic rather than laparotomy].

15. A footballer has been struck in the groin by a kick and presents with severe pain and mild swelling in the scrotum. What is the most appropriate next step?
    A. USG
    B. Doppler
    C. Exploratory surgery
    D. IV fluids
    E. Antibiotics

Ans. The key is C. Exploratory surgery. [To exclude torsion].

16. A 45-year-old woman comes with red, swollen and exudating ulcer on the nipple and areola of right breast with palpable lump under the ulcer. What do you think is causing this skin condition?
    A. Inflammatory cells releasing cytokines
    B. Infiltration of the lymphatics by the carcinomatous cells
    C. Infiltration of the malignant skin cells to the breast tissue

Ans. The key is B. Infiltration of the lymphatics by the carcinomatous cells.

17. A 66-year-old man, an hour after hemicolectomy has an urine output of 40ml. However, an hour after that, no urine seemed to be draining from the catheter. What is the most appropriate next step?
    A. IV fluids
    B. Blood transfusion
    C. Dialysis
    D. IV furosemide
    E. Check catheter

Ans. The key is E. Check catheter.

18. A 67-year-old woman has presented with hard, irregular, poorly defined 5cm lump in her right breast. She has a bruise on the surface and there is no discharge. What is the most likely diagnosis?
    A. Fibroadenosis
    B. Fat necrosis
    C. Fibroadenoma
    D. Duct ectasia
    E. Ca breast

    Ans. The key is B. Fat necrosis. [Fat necrosis usually occurs following trauma or surgery. Given case is a fat necrosis of breast as there is no discharge and there is a bruise indicating prior trauma].

    *****

19. A 67-year-old female who had undergone a radical mastectomy now comes with the complaint of swelling and redness in her right upper limb. Involvement of which of the following structures explain these symptoms?
    A. Epitrochlear LN
    B. Cephalic vein
    C. Subclavian artery
    D. Axillary group of LN
    E. Long thoracic nerve

Ans. The key is D. Axillary group of LN. [Axillary clearance compromise lymphatic flow and may results in swelling of upper limb].

20. A 68-year-old male presented with swelling in the lower pole of the parotid gland for the last 10 years. Examination: firm in consistency. What's the most probable diagnosis?
    A. Pleomorphic adenoma
    B. Adenolymphoma
    C. Mikulicz's disease

D. Parotiditis
E. Frey's syndrome

Ans. The key is A. Pleomorphic adenoma. [Pleomorphic adenoma (most common) - also called benign mixed tumour: is the most common tumour of the parotid gland and causes over a third of submandibular tumours. They are slow-growing and asymptomatic, having a malignant potentiality].

21. A 28-year-old shipyard worker was admitted for pain in calf while at work which has been increasing over the last 3 months. There is no history of HTN or DM but he is a smoker. Exam: loss of posterior tibial and dorsalis pedis pulsation along with a non-healing ulcer at the base of the right 1st MTP (metatarsophalingeal joint) joint. What is the most probably diagnosis?
    A. Thromboangitis obliterans
    B. Sciatica
    C. DVT
    D. Baker's cyst
    E. Embolus

Ans. The key is A. Thromboangitis obliterans. [i) young age ii) smoker iii) pain in cuff iv) loss of posterior tibial and dorsalis pedis pulsation v) non-healing ulcer at the base of the right 1st MTP joint all are suggestive of Buerger's disease].

22. A 35-year-old construction worker is diagnosed with indirect inguinal hernia. Which statement below best describes it?
    A. Passes through the superficial inguinal ring only
    B. Lies above and lateral to the pubic tubercle
    C. Does not pass through the superficial inguinal ring
    D. Passes through the deep inguinal ring

Ans. The key is D. Passes through the deep inguinal ring.

23. A 55-year-old man has been admitted for elective herniorraphy. Which among the following can be the reason to delay his surgery?
    A. Controlled asthma
    B. Controlled atrial fibrillation
    C. DVT (deep venous thrombosis) 2yrs ago
    D. Diastolic BP 90mmHg
    E. MI 2 months ago

Ans. The key is E. MI 2 months ago [better go for surgery 6 months post MI as surgery before this has higher mortality rate].

24. A man on warfarin posted for hemicolectomy. As the patient is about to undergo surgery. What option is the best for him?
    A. Continue with warfarin

B. Continue with warfarin and add heparin
C. Stop warfarin and add aspirin
D. Stop warfarin and add heparin
E. Stop warfarin
Ans. The key is D. Stop warfarin and add heparin.

25. A 48-year-old lady presents with itching, excoriations, redness, bloody discharge and ulceration around her nipple. What is the most likely diagnosis?
    A. Paget's disease of the breast
    B. Fibrocystic dysplasia
    C. Breast abscess
    D. Duct papilloma
    E. Eczema

Ans. The key is A. Paget's disease of the breast.

26. Patient with widespread ovarian carcinoma has bowel obstruction and severe colic for 2 hours and was normal in between severe pain for a few hours. What is the most appropriate management?
    A. PCA (morphine)
    B. Spasmolytics
    C. Palliative colostomy
    D. Oral morphine
    E. Laxatives

Ans. The key is C. Palliative colostomy. [Cancer or chemotherapy induced obstructions are unlikely to respond to conservative management (NBM, IV fluid, nasogastric suction) and hence only analgesia will not relieve it. So in such cases we have to go for palliative colostomy].

27. A patient presented with history of swelling in the sub-mandibular region, which became more prominent and painful on chewing. He also gave history of sour taste in the mouth, the area is tender on palpation. Choose the most probable diagnosis?
    A. Chronic recurrent sialadenitis
    B. Adenolymphoma
    C. Mikulicz's disease
    D. Adenoid cystic carcinoma
    E. Sub-mandibular abscess

Ans. The key is A. Chronic recurrent sialadenitis. [pain, swelling, more pain on chewing, tenderness, and swelling of submandibular region suggests diagnosis of submandibular chronic recurrent sialadenitis, usually secondary to sialolithiasis or stricture].

28. A lady, post-colostomy closure after 4 days comes with fluctuating small swelling in the stoma. What is the management option for her?

A. Local exploration
B. Exploratory laparotomy
C. Open laparotomy
D. Reassure

Ans. The key is A. Local exploration.

29. A T2DM is undergoing a gastric surgery. What is the most appropriate pre-operative management?

A. Start him in IV insulin and glucose and K+ just before surgery

B. Stop his oral hypoglycemic on the day of the procedure

C. Continue regular oral hypoglycemic

D. Stop oral hypoglycemic the prv night and start IV insulin with glucose and K+ beforesurgery

E. Change to short acting oral hypoglycemic

Ans. The key is D. Stop oral hypoglycemic the prv night and start IV insulin with glucose and K+ beforeSurgery.

30. A 70-year-old man had a right hemicolectomy for ceacal carcinoma 6 days ago. He now has abdominal distension and recurrent vomiting. He has not opened his bowels since surgery. There are no bowel sounds. WBC=9, Temp=37.3C. What is the single most appropriate next management?

A. Antibiotic therapy IV

B. Glycerine suppository

C. Laparotomy

D. NG tube suction and IV fluids

E. TPN

Ans. The key is D. NG tube suction and IV fluids. [The patient has developed paralytic ileus which should be treated conservatively. But as in such case in cancer patient conservative management may not respond and laparotomy may be considered].

31. Which of the following formulas is used for calculating fluids for burn patients?

A. 4 x weight(lbs) x area of burn = ml of fluids

B. 4 x weight(kgs) x area of burn = L of fluids

C. 4 x weight(kgs) x area of burn = ml of fluids

D. 4 x weight(lbs) x area of burn = L of fluids

E. 4.5 x weight(kgs) x area of burn = dL of fluids

Ans. The key is C. 4 x weight(kgs) x area of burn = ml of fluids.

32. A 45-year-old man underwent an emergency splenectomy following a fall from his bicycle. He smokes 5 cigarettes/day. Post-operation, despite mobile, he develops swinging pyrexia and a swollen painful left calf. His CXR shows lung atelectasis and abdominal US demonstrates a small sub-phrenic collection. What is the single most likely risk factor for DVT in this patient?

    A. Immobility
    B. Intraperitoneal hemorrhage
    C. Smoking
    D. Splenectomy
    E. Sub-phrenic collection

Ans. The key is D. Splenectomy. [Splenectomized patients have an increased risk of developing deep vein thrombosis and pulmonary embolism].

33. A 45-year-old man had cancer of head of pancreas which has been removed. He has a history of longstanding heartburn. He now comes with rigid abdomen which is tender, temp 37.5C, BP 90/70mmHg, pulse 120bpm. What is the next step of the investigation?
    A. CT abdomen
    B. XR abdomen
    C. MRI abdomen
    D. US abdomen
    E. Endoscopy

Ans. The key is B. X-ray abdomen. [X-ray abdomen will help diagnosing perforation by showing gas under diaphragm. This is a case of perforated peptic ulcer with the features of shock, abdominal rigidity and raised temperature. Stress from serious disease and operation causes the body to produce higher amounts of acid, which can irritate preexisting ulcers leading to easy perforation].

34. A 64-year-old woman has been treated for breast cancer with tamoxifen. What other drug should be added to her treatment regime?
    A. Bisphosphonates
    B. Calcium
    C. Vit D
    D. Calcitonin
    E. Phosphate binders

Ans. The key is A. Bisphosphonates. [bisohosphonates reduce the risk of bone metastasis in cancers and is normally taken as adjuvant therapy in many types of tumours including breast cancer. Plus it prevents bone resorption].

35. A 6-year-old came with full thickness burn. He is crying continuously. What is the next step of management?
    A. Refer to burn unit
    B. IV fluid stat
    C. Antibiotic
    D. Analgesia
    E. Dressing

Ans. The key is B. IV fluid stat. [Here already mentioned full thickness burn which is painless. Child often cry from anxiety for hypoxaemia and hypovolaemia rather than pain. The patient then responds better to oxygen or increased fluid administration rather than to narcotic analgesics. Ref: patient.info].

36. A 75-year-old woman presents to the breast clinic having noticed that she has had a blood stained discharge from the left nipple, together with dry skin over the left areola. Exam: blood stained discharge with dry flaky skin noted on the left areola. The nipple was noted to be ulcerated. Wht is the most appropriate investigation?
    A. FNAC
    B. MRI
    C. Punch biopsy
    D. Open biopsy
    E. Stereotactic biopsy

Ans. The key is C. Punch biopsy. [As the lesion is on the surface punch biopsy can be well obtained].

37. A 46-year-old woman has offensive yellow discharge from one nipple. She had a history of breast abscess 3years ago. What is the possible diagnosis?
    A. Duct papilloma
    B. Duct ectasia
    C. Duct fistula
    D. Breast cancer

Ans. The key is C. Duct fistula.

38. A 45-year-old woman presents with discharge from the left nipple. The discharge is brownish-green and foul smelling. What is the most likely diagnosis?
    A. Duct papilloma
    B. Intra-ductal papilloma
    C. Duct ectasia
    D. Mammary duct fistula
    E. Breast abscess

Ans. The key is C. Duct ectasia. [Women near menopause are more affected by duct ectasia characterized by brown, green or cheesy discharge. This condition is harmless and tends to clear up without treatment].

39. A 17-year-old boy while playing football got a kick and now he is complaining of severe pain and swelling of the left side of his scrotum. What investigation is the most appropriate to diagnose?
    A. Needle aspiration of scrotum
    B. US scrotum
    C. MSU
    D. Surgical exploration of scrotum
    E. Urine test for hematuria

Ans. The key is D. Surgcal exploration of scrotum. [This is a case of testicular torsion which needs urgent diagnostic and therapeutic surgical exploration of the scrotum].

40. A 57-year-old male presents with sudden onset severe abdominal pain and rigidity against a 4 daysbackground of LIF (left iliac fossa) pain and pyrexia. He has no past medical or surgical history of note and isn't on any medicine. What is the most likely diagnosis?
    A. Intussusception
    B. Ischemic colon
    C. Sigmoid volvulus
    D. Perforated diverticulum
    E. Perforated Meckel's diverticulum

Ans. The key is D. Perforated diverticulum. [Sudden onset, severe abdominal pain, rigidity, left iliac fossa pain and fever are in favour of perforated diverticulum].

41. A 20-year-old male smoker is noted to have intense rubor of the feet and absent foot pulse. Examination: amputated right 2nd toe. What is the most probable diagnosis?
    A. Intermittent claudication
    B. Cardiovascular syphilis
    C. Buerger's disease
    D. Embolism
    E. Acute limb ischemia

Ans. The key is C. Buerger's disease. [The traditional diagnosis of Buerger's disease is based on 5 criteria (smoking history, onset before the age of 50 years, infrapopliteal arterial occlusive disease, either upper limb involvement or phlebitis migrans, and absence of atherosclerotic risk factors other than smoking). As there is no specific diagnostic test and an absence of positive serologic markers, confident clinical diagnosis should be made only when all these 5 criteria have been fulfilled].

42. A 44-year-old woman with breast cancer had an extensive removal and LN clearance. She needs an adjunctive treatment. Her mother had cancer when she was 65. Which of the following factors will be against the treatment?
    A. Family history
    B. Tumor grading
    C. LN involvement
    D. Her age

Ans. The key is D. Her age. [Chemotherapy may result in premature ovarian failure].

43. A patient on insulin is booked in for a hernia operation. What is the most appropriate management of insulin?
    A. Give insulin and saline pre-op
    B. Stop insulin for the duration of the op
    C. Give IV insulin + dextrose + saline pre-op
    D. Give insulin as usual pre-op
    E. None

Ans. The key is C. Give IV insulin + dextrose + saline pre-op.

44. A 26-year-old presents with prolonged constipation, blood on side of stool and very painful defecation. PR examination: very painful. What is the single most likely diagnosis?
    A. Ca Colon
    B. UC
    C. CD
    D. Anal fissure
    E. Constipation

Ans. The key is D. Anal fissure.

45. A 26-year-old male has been operated for abdominal trauma and splenectomy was done. On the 3rd post-op day the patient developed acute abdominal pain and distention in the upper abdominal area with hypotension. On insertion of ryles tubes, 2L of coffee ground fluid was aspirated. What is the most probable diagnosis?
    A. Acute gastric dilatation
    B. Reactionary hemorrhage
    C. Subphrenic abscess
    D. DVT
    E. Left lower lobe atelectasis

Ans. The key is A. Acute gastric dilatation. [Acute gastric dilatation may be caused by:

Hyperglycaemia, childbirth, abdominal injury, application of a spinal cast, rarely, after abdominal surgery when the stomach is in ileus and drink has been taken too soon. The abdomen is distended and tender. The patient complains of epigastric fullness, nausea, heaviness and heartburn. There is a succussion splash. The accumulation of fluid in the stomach may induce hypovolaemic shock. Reflux of gastric contents may cause an aspiration pneumonia].

46. 2 hours after an appendectomy, a patient complains of a rapid HR (heart rate) and fever. He says there is alsoabdominal pain and pain in the shoulder area. What is happening to this patient?
    A. Intra-abdominal bleeding

B. Anastomotic leak
C. Sepsis
D. Intestinal obstruction

Ans. The key is A. Intra-abdominal bleeding.

47. A diabetic man feels hot, painful lump near the anal region. What is the most probable diagnosis?
    A. Anal fissure
    B. Abscess
    C. Hematoma
    D. Wart
    E. External hemorrhoids

Ans. The key is B. Abscess. [Diabetic patients are much prone to infection].

48. A 65-year-old lady with type 1 diabetes mellitus for the last 20 year comes with a tender lump near the anal opening. She says she also has a fever. What treatment should she get?
    A. I&D + antibiotics
    B. IV antibiotics
    C. C&S of aspirate from swelling
    D. Painkillers
    E. Cautery of swelling

Ans. The key is A. I&D + antibiotics. [D/D 1. Perianal abscess 2. Perianal hematoma 3. Thrombosed piles. As infection is common in DM likely case is perianal abscess].

49. 2hours after an appendectomy, a patient complains of a rapid HR (heart rate) and fever. He says there is alsoabdominal pain and pain in the shoulder area. What is the first step in the management?
    A. Maintain IV access and give IV fluids
    B. Start IV antibiotics
    C. Insert NGT for intestinal decompression
    D. Cross match blood
    E. Emergency exploratory laparotomy

Ans. The key is A. Maintain IV access and give IV fluids.

50. A 65-year-old man on dexamethasone underwent surgery. During and after the surgery, his blood glucose was around 17-19mmol/l. What will you give the patient?
    A. Insulin
    B. Oral hypoglycemic
    C. Remove dexamethasone
    D. IV Saline

E. IV dextrose

Ans. The key is A. Insulin. [If patient is on dexamethasone there may be suppression of pituitary adrenal axis suppression. In such patient operation may precipitate adrenal insufficiency and to prevent this corticosteroid coverage with additional dexamethasone is given. This may lead to hyperglycemia. If this hyperglycemia is significant (as given in present question) insulin should be given].

51. A 60-year-old man presents with mass in the groin. Examination: mass lies below the midpoint of the inguinal ligament and is pulsatile. What is the most probable diagnosis?
    A. Direct inguinal hernia
    B. Saphenavarix
    C. Femoral hernia
    D. Irreducible hernia
    E. Femoral aneurysm

Ans. The key is E. Femoral aneurism . [Hernia below pubic tubercle (below inguinal ligament) is femoral hernia. But below mid-inguinal point and pulsatile mass is femoral aneurism].

52. A 40-year-old manual worker presents with a swelling in the groin. Examination: mass is found to be just above and lateral to the pubic tubercle. It is reducible. On applying pressure on the internal ring there is no cough impulse seen. What is the most probable diagnosis?
    A. Direct inguinal hernia
    B. Indirect inguinal hernia
    C. Femoral hernia
    D. Strangulated hernia
    E. Femoral aneurysm

Ans. The key is B. Indirect inguinal hernia. [Swelling in the groin; mass just above and lateral to the pubic tubercle means inguinal hernia. It is reducible. On applying pressure on the internal ring there is no visible cough impulse; it means the hernia enters through deep ring, and enters scrotum passing through the superficial ring. That means it is indirect inguinal hernia].

53. A 25-year-old woman who is 11 weeks pregnant had central abdominal pain for 36 hours. The pain is now colicky. There is no vaginal bleeding. She has vomited once and has had an episode of loosen motion. She looks ill, temp=37.8C and there is rebound tenderness in the RIF. What is the mostprobable diagnosis?
    A. Salpingitis
    B. PID
    C. Appendicitis
    D. Ovarian torsion
    E. Uterine fibroid

Ans. The key is C. Appendicitis. [No vaginal bleeding and pain above pelvis makes pregnancy complication less likely. Loose motion, low grade temperature and positive Mc Burney's sign makes the diagnosis of appendicitis more probable].

54. A 40-year-old woman presents with dysphagia. Examination: febrile with erythema and middle neck swelling. What is the best management strategy?
    A. IV antibiotics and drainage
    B. Antipyretics
    C. XR neck
    D. Endoscopic diverticulectomy
    E. I&D

Ans. The key is A. IV antibiotics and drainage. [Neck abscess. Treated with IV antibiotics and drainage].

55. A lady developed breast abscess after delivery. What is the most likely organism?
    A. Staph aureus
    B. Staph albus
    C. GBS
    D. Strep pyogenes
    E. Strep faecalis

Ans. The key is A. Staphylococcus aureus.

56. A 55-year-old man presents with swelling at the angle of the mandible which is progressively increasing in size and it's mobile for 6 months. What is the most probable diagnosis?
    A. Benign parotid
    B. Mandible tumor
    C. Tonsillar carcinoma

Ans. The key is A. Benign parotid. [Mandibular tumour or tonsillar carcinoma would not be so mobile after such time period].

57. A 55-year-old male has been admitted for elective herniorraphy. Which among the following can be the reason to delay his surgery?
    A. Controlled asthma
    B. Controlled A-fib
    C. DVT 2yrs ago
    D. DBP 90mmHg
    E. MI 2m ago

Ans. The key is E. MI 2m ago. [Following MI at least 6 months should be elapsed for elective operation. Prior this time surgery is associated with increased mortality].

58. A 17-year-old girl with a lump in her breast was seen in the clinic. Examination: the lump was free and mobile and not attached to the skin. Her mother wants further tests done. What should be the next step?
    A. CT
    B. US breast
    C. Punch biopsy
    D. Reassure and send home
    E. Stereotactic biopsy

Ans. The key is B. US breast. [Described lump is fibroadenoma. Next investigation is either US breast (for women under 35 yrs) or mammography (for women over 35 yrs)].

59. A lady with a firm smooth breast lump in outer quadrant had a FNAC done. Results showed borderline benign changes. She also has a family history of breast cancer. What is your next step?
    A. Mammography
    B. US
    C. Core biopsy
    D. Genetic testing and counselling
    E. Punch biopsy

Ans. The key is C. Core biopsy. [Genetic testing is done for asymptomatic patients in their 30s but given case is symptomatic. If FNAC was not borderline we could withheld core biopsy in favour of genetic councelling and if positive SERMs are given which cause significant reduction in cancer].

60. A 65-year-old man had a bowel resection 5 days ago. He is anuric and breathless. His BP=150/110mmHg. He has crackles at both lung bases and sacral edema. Bloods: K+=6.8mmol/l, urea=58mmol/l, creatinine=600umol/l. What is the single most appropriate immediate management?
    A. Bolus of 20U insulin
    B. Calcium resonium enema
    C. Dextrose-saline infusion
    D. 5% dextrose infusion
    E. 10U insulin, 50ml of 50% dextrose infusion

Ans. The key is E. 10U insulin, 50ml of 50% dextrose infusion. [There is renal failure with hyperkalemia. First we have to save heart from arrest or life threatening arrhythmia by shifting K+ into cell. 10U insulin in 50 ml 50% dextrose will help doing this].

61. A 38-year-old man presents with acute infection of skin in the leg. Diagnosis of cellutitis has been made. What medicines should be prescribed?
    A. Penicillin + Flucloxacillin
    B. Metronidazole + erythromycin
    C. Vancomycin + metronidazole

D. Ceftriaxone + terbinafine
E. Ceftriaxone + flucloxacillin

Ans. The key is A. Penicillin + Flucloxacillin. [Cellulitis is usually caused by bacteria, such as staphylococci or streptococci that are commonly present on the skin. So Penicillin + Flucloxacillin should be given].

62. A boy was admitted with partial thickness burn, what is your next step?
    A. Escharectomy
    B. Dressing
    C. Burst blisters
    D. Local antibiotics
    E. Refer to burn unit

Ans. The key is E. Refer to burn unit.

63. A 32-year-old woman has undergone a biopsy for a breast lump. The report says: a well circumscribed lump with clear margins and separated from the surrounding fatty tissue. What is the most appropriate interpretation of this report?
    A. Fibroadenosis
    B. Ca Breast
    C. Mammary abscess
    D. Fibroadenoma
    E. Fat necrosis

Ans. The key is D. Fibroadenoma. [Fibroadenomas are the most common benign tumor of the female breast. White , well-circumscribed mass is clearly demarcated from the surrounding yellow adipose tissue].

64. A 23-year-old female presented with a swelling of her neck that moved upwards on protrusion of tongue. What is the next appropriate investigation?
    A. FNAC
    B. Punch biopsy
    C. Core biopsy
    D. MRI neck
    E. Radioactive thyroid scan

Ans. The key is A. FNAC. [The diagnostic investigation of thyroglossal cyst is FNAC. Then we palpate for thyroid tissue. If absent we do any one of following to confirm the absence of thyroid tissue: ultrasonography, CT scanning, thyroid scanning or MRI. If there is normal thyroid tissue we go for more aggressive Sistrunk's operation but if there is no normal thyroid tissue [in that case thyroglossal cyst itself may be the only source of thyroid tissue] we do conservative surgery and preserve some portion of cyst with thyroid tissue].

65. A 35-year-old man has had acute pain and swelling below the mandible on the left side for 2 hours. The swelling occurred after eating a large meal. What is the single most likely diagnosis?
    A. Laryngocele
    B. Ranula
    C. Neck abscess
    D. Parotid calculus
    E. Submandibular calculus

Ans. The key is E. Submandibular calculus. [Pain and swelling below mandible is due to stone in submandibular salivary gland duct. Pain and swelling increased after large meal as the saliva produced during meal could not come out of the gland due to stone].

66. A patient is about to undergo surgery. Her Hgb8.9g/dl and MCV=70. What is the best option for her?
    A. Investigation and postpone the surgery
    B. Transfuse and proceed with surgery
    C. Transfuse and defer surgery
    D. Continue with surgery

Ans. Key is A. Investigation and postpone the surgery. [For elective operation only proceed if Hb% > 10 g/dl. If Hb% < 10 g/dl then defer the operation and investigate first. If Hb% < 8 g/dl also must be transfused].

67. A 24-year-old male presents with discomfort in the groin area and scrotal swelling. Exam: scrotal skin is normal. What would be the next best step?

    A. Urgent US

    B. Urgent surgery

    C. OPD referral

    D. Antibiotics

Ans. The key is C. OPD referral. [A case of inguinal hernia or hydrocele. In both torsion or epididymo-orchitis scrotal skin will be inflammed (erythematous and oedematous). As the skin is not inflamed the patient should be referred to Surgery OPD].

68. A pregnant woman had hit her chest 3 weeks ago. Now she is 24 weeks pregnant and presents with left upper quadrant mass with dimpling. What is the most probable diagnosis?
    A. Breast ca
    B. Carcinoma
    C. Fibroadenoma
    D. Fibroadenosis

E. Fatty necrosis of breast

Ans. The key is E. Fatty necrosis of the breast.

69. Which of the following conditions requires operative management?
    A. Cellulitis
    B. Dyshidrosis
    C. Erysipelas
    D. Fournier's gangrene
    E. Lymphangitis

Ans. The key is D. Fournier's gangrene. [Fournier's gangrene: A horrendous infection of the genitalia that causes severe pain in the genital area (in the penis and scrotum or perineum) and progresses from erythema (redness) to necrosis (death) of tissue. Gangrene can occur within hours].

70. A 79-year-old man has a swelling of the right groin which was clinically diagnosed to be indirect inguinal hernia. What is the single feature of the hernia sac that would confirm the diagnosis?
    A. Comes through femoral ring
    B. Doesn't pass through the deep inguinal ring
    C. Lies below and lateral to the pubic tubercle
    D. Only passes through the superficial inguinal ring
    E. Passes through the deep inguinal ring

Ans. The key is E. Passes through the deep inguinal ring. [Ingunal hernia lies mostly above and medial (occasionally lateral particularly when small) to pubic tubercle. It first enters the inguinal canal through deep inguinal ring and then enters the scrotum through the superficial inguinal ring].

71. A 56-year-old woman with history of breast cancer 10 yrs ago has undergone radical mastectomy and axillary lymph node removal, now complains of swollen upper limb 3 weeks after an insect bite. The bite site is better but gross edema is still present. What is the cause?
    A. Lymphedema
    B. Breast Ca
    C. Allergy
    D. Filariasis

Ans. The key is A. Lymphedema. [As during mastectomy axillary clearance is done, lymphatics on that upper limb is compromised. So there occurs lymphedema].

72. A patient after his house fire came with hematemesis with erosion/ulcer of esophagus and on examination there is 55% burn and on endoscopy there is a stomach/gastric erosion and soot in the mouth. What is the treatment?
    A. PO PPI

B. IV PPI
C. PPI and antibiotic
D. H. pylori test
E. Tracheal intubation

Ans. The key is E. Tracheal intubation. [If a burnt patient gets soots in mouth and /or nose tracheal intubation is done. GI ulceration (here oesophageal and gastric ulcers and erosions) due tu burns are known as curlings ulcers].

73. A man rescued from a building on fire presented with unconsciousness without any evidence of burns or external injury or soot. What would you do next?
A. 100% oxyen inhalation
B. 24% oxygen by mask
C. Hyperbaric oxygen in a hyperbaric chamber
D. Intubation
E. Refer to specialist unit

Ans. The key is A. 100% oxygen inhalation. [In CO poisoning 100% oxygen is the initial management and also there is a role of hyperbaric oxygen in a hyperbaric chamber].

74. A man presented with a purplish swelling at the anal area. It is acutely painful and he complains of constipation for the last 2 months. What is the most appropriate management?
A. I&D (incision and drainage)
B. I&D + antibiotics
C. Reassure
D. Analgesia
E. Sclerotherapy

Ans. The key is B. I&D + antibiotics. [Excision is the method which is done in case of hemorrhoid not incision. This is a case of perianal hematoma which when clotted is treated by incision and left open with excellent result of healing with aids of antibiotics prophylaxis. It occurs in case of constipation. Answer is B. Incision and drainage + antibiotics. In acute case prior to thrombosis can be treated with evacuation with syringe].

75. A 55-year-old man presented with hot, raised, tender area of skin on his right leg. He is febrile with rigors. He has been started on flucloxacillin. What other medication will you add?
A. Ciprofloxacin
B. Gentamicin
C. Metronidazole
D. Benzylpenicillin
E. Ceftriaxone

Ans. The key is D. Benzylpenicillin. [Abscess, cellulitis, furuncle these lesions are usually caused by Staphylococcus and streptococcus. So Benzylpenicillin should be added with flucloxacillin to cover streptococcus].

76. A man feels mild discomfort in the anal region and purulent discharge in underpants. What is the most likely diagnosis?
    A. Feacal incontinence
    B. Anal abscess
    C. Fistula in ano
    D. Anal tags
    E. Rectal Ca

Ans. The key is C. Fistula in ano. [Abscess is with severe pain which may reduce after it bursts with purulent discharge. But here mild discomfort and purulent discharge favours the diagnosis of fistula].

77. A 30-year-old woman has a painless lump in the outer aspect of her left breast. She has had a previous breast lump. Her grandmother had breast cancer at 70 years. She has a 1 cm smooth, firm, discrete, mobile lump in the other quadrant region of the left breast. What is the single most likely diagnosis?
    A. Breast abscess
    B. Breast carcinoma
    C. Breast cyst
    D. Fibro-adenoma
    E. Sebaceous cyst

Ans. D. Fibroadenoma. [H/O previous brest lump and presently with a lump of 1 cm size which is smooth, firm (not hard), discrete and mobile (not fixed) suggests fibro-adenoma].

78. A 35-year-old woman complains of hoarseness of voice 3hours after partial thyroidectomy. She had no history of phonation problems before the surgery. What is the single most appropriate investigation?
    A. Laryngoscopy
    B. Bronchoscopy
    C. CT neck
    D. CXR
    E. Barium swallow

Ans. The key is A. Laryngoscopy. [Probable diagnosis is recurrent laryngeal nerve palsy].

79. A 60-year-old patient recovering from a surgery for toxic goiter is found to be hypotensive, cyanosed in the recovery room. Exam: neck is tense. There is oozing of blood from the drain. What is the most probable diagnosis?

A. Thyroid storm
B. Reactionary hemorrhage
C. Secondary hemorrhage
D. Primary hemorrhage
E. Tracheomalacia

Ans. The key is B. Reactionary hemorrhage. [Hemorrhage within 1st 24 hours which usually occurs due to dislodgement of clot or slippage of a ligature].

80. A 40-year-old woman has had varicose vein surgery, planned as a day patient. After the operation, she is distressed by repeated retching and vomiting. Her pain is currently well controlled. What is the best management strategy?
A. Tramadol
B. Co-codamol
C. IM morphine
D. IV ondansetron
E. PO ondansetron

Ans. The key is D. IV ondensatron. [As there is repeated retching and vomiting patient cannot keep oral medication down. So IV ondansatron should be given].

81. An 88-year-old woman is a known smoker. She had an attack of MI 2 years back and is known to have peripheral vascular disease. She presents with an irreducible herniation over the incision region of a surgery which she underwent in her childhood. What is the most appropriate treatment?
A. Truss
B. Elective herniorrhaphy
C. Urgent herniorrhaphy
D. Elective herniotomy
E. Reassure

Ans. The key is B. Elective hernioraphy. [Truss can not be used as hernia is irreducible; urgent herniorrhaphy in strangulation; elective herniotomy- in herniotomy the hernia may recur; only reassure is not an option as irreducibe hernia may become strangulated or may develop intestinal obstruction].

82. A 62-year-old man has had ano-rectal pain aggravated by defecation for 3 days. Rectal examination: purple, tender lump at the anal verge. Flexible aigmoidoscopy: normal rectal mucosa and hard feces. What is the diagnosis?
A. Anal hematoma
B. Anal fissure
C. Rectal ca
D. Diverticulitis
E. Angiodysplasia

Ans. The key is A. Anal hematoma.

83. A 63-year-old male undergoes abdominal surgery. On Monday morning, 3 days post-operative, repeat samples confirm serum K+ 7.1mmol/l. His ECG shows broad QRS complexes. Which one of the following can be used as an effective treatment for this pt's hyperkalemia?
    A. Calcium chloride IV
    B. Calcium gluconate IV
    C. Insulin subcutaneously
    D. Furosemide IV

Ans. The key is B. Calcium gluconate IV. [Calcium gluconate does not shift potassium into cells or reduce its level but prevents its arrythmogenic effect on heart and buys time till definitive measures are taken].

84. A lady with post ileo-colectomy closure of stoma has a small 4cm swelling around the stoma. What is the most appropriate management of the swelling?

A. Local exploration of swelling

B. Exploratory laparotomy

C. Open laparotomy and re-closure

D. Abdominal binder

E. Truss

F. Laparotomy with mesh repair

Ans. The key is A. Local exploration of swelling.

85. A woman became acutely SOB (short of breath) in the recovery bay and is coughing after GA. Auscultation: reduced air entry at the right lung base and diffuse wheeze. Observation: HR88bpm, BP112/76mmHg, temp=37.8C and saturation 91% in air. Choose among the options which C-section complication has she developed?
    A. Aspiration pneumonitis
    B. Spontaneous pneumothorax
    C. Endometritis
    D. Pulmonary embolism
    E. Tension pneumothorax

Ans. The key is A. Aspiration pneumonitis. [Diffuse wheeze, reduced air entry at lung base and raised temperature favours the diagnosis of aspiration pneumonitis].

86. A 35-year-old woman presents with mass in the groin. Examination: mass found just below and lateral to the pubic tubercle. There is no cough impulse and it is irreducible. What is the most probable diagnosis?
    A. Direct inguinal hernia
    B. Strangulated hernia
    C. Femoral hernia
    D. Saphenavarix
    E. Femoral aneurysm

Ans. The key is C. Femoral hernia. [Mass below and lateral to the pubic tubercle is suggestive of femoral hernia].

87. A lady presents with a swelling below the groin crease that can be reduced. There is no medical history of note. What is the most probable diagnosis?
    A. Inguinal hernia
    B. Strangulated hernia
    C. Testicular tumor
    D. Epidydimal cyst
    E. Femoral hernia

Ans. The key is E. Femoral hernia.

88. A 45-year-old mechanic presents with a reducible swelling in the groin, impulse on coughing is present. He has mild dragging pain in the abdomen, otherwise he's normal. What is the best management strategy?
    A. Truss
    B. Elective herniorrhaphy
    C. Urgent herniorrhaphy
    D. Elective herniotomy
    E. Reassure

Ans. The key is B. Elective herniorrhaphy. [Usually before the age of 30, recurrence rate of hernia after herniotomy is much less but after 30 recurrence is high. So Herniotomy is done at the age less than 30. As the presenting case is of 45 yrs we should do herniorrhaphy in this patient].

89. A 25-year-old man present with a mass in the groin after heavy lifting. Examination: mass is found just above and medial to the pubic tubercle. It is reducible. On applying pressure on the internal ring, cough impulse is still present. What is the most likely diagnosis?
    A. Direct inguinal hernia
    B. Indirect inguinal hernia
    C. Femoral hernia
    D. Strangulated hernia
    E. Femoral aneurysm

Ans. The key is A. Direct inguinalhernia. [On occlusion of deep inguinal ring if cough impulse still present (visible cough impulse) on medial to occluded ring it is direct inguinal hernia].

90. A 35-year-old woman presents with a swelling in the neck. The swelling has increased in size gradually over the last two years and the patient feels she has difficulty with breathing. Examination: mass measures 8cm by 10 cm, soft and not warm to touch. It moves with deglutition. Which is the most appropriate management of this mass?
    A. Partial thyroidectomy
    B. Oral thyroxine
    C. Oral propylthiouracil
    D. Excision biopsy

Ans. The key is A. Partial thyroidectomy. [Gradually increased swelling in the neck which moves with deglutition is thyroid enlargement and as it is causing pressure symptom like difficulty in breathing a partial thyroidectomy should be performed].

91. A 46 year old laborer reports swelling in the right groin. The non-painful swelling is observable in both the erect and the recumbent positions. Examination: non-tender irreducible 4 cm mass in the right groin below and on the medial side of the inguinal ligament. Which is the most likely diagnosis in this patient?
    a. Indirect inguinal hernia
    b. Femoral hernia
    c. Saphenous vein varicocoele
    d. Hydrocoele

Ans. The key is B. Femoral hernia. [Sephanous vein varicocele is readily reducible with recumbent position. So presented case is not sephanavarix. Usual location of femoral hernia is below and lateral to pubic tubercle but it is not absolute and it is possible for femoral hernia to present as mass below and medial to pubic tubercle. So the presented case is a case of femoral hernia].

92. A 42 year old woman reports to the surgeon that she is worried about a lump that she feels the right breast. The surgeon observes a 2 cm by 3 cm mass in the right lower quadrant of the breast. There are no associated skin changes and the mass has limited mobility. There is no discharge from the nipple. There is no axillary lymph node enlargement. Examination of the left breast and axilla was completely normal. A mammogram report suggests the presence of microcalcifications. Which is the most appropriate next step in the management of this patient?
    a. Observation for one year and repeat the mammography
    b. A needle-guided biopsy of the breast
    c. Excision biopsy of the breast
    d. Partial mastectomy

Ans. The key is B. A needle-guided biopsy of the breast.

93. A 36 year old woman presents with swelling in the groin. Examination: swelling is diffuse and soft and lies below the inguinal ligament. It empties with minimal pressure and refills with release. There is a cough impulse and it disappears on lying down. On the calf of the same leg there are varicosities on the medial aspect. What is the most likely diagnosis?
    a. Varicose vein
    b. Varicocele
    c. Saphena varix
    d. Femoral hernia
    e. Inguinal hernia

Ans. The key is C. Saphena Varix. [Below inguinal ligament, empties with minimal pressure and refills with release, presence of cough impulse and disappearance on lying down are suggestive of caphena varix supported by presence of varicosity in same leg].

94. A man presents with a swelling above the groin crease in the abdomen. He has not had any med problems of note. What is the most probable dx?
    a. Inguinal hernia
    b. Spigelian hernia
    c. Testicular tumor
    d. Epidydimal cyst
    e. Irreducible hernia

Ans. B. Spigelian Hernia. [A Spigelian hernia (or lateral ventral hernia) is a hernia through the spigelian fascia, which is the aponeurotic layer between the rectus abdominis muscle medially, and the semilunar line laterally].

95. A 65 year old man had closure of colostomy performed 5 days ago. He is not systemically unwell. There is a tender, localised fluctuant swelling 4 cm in diameter in the wound. What is the SINGLE most appropriate management?
    a. Abdominal support
    b. Antibiotics
    c. Laparotomy and re-suture wound
    d. Local exploration of wound
    e. Observation

Ans. The key is D. Local exploration of wound.

96. A 72 year old man being investigated for anaemia is booked for a colonoscopy in 24 hours. What is the SINGLE most appropriate management the night before the procedure?
    a. Bisacodyl tablets
    b. Glycerine suppository
    c. Lactulose syrup
    d. Magnesium citrate (orally)
    e. Senna tablets

Ans. The key is D. Magnesium Citrate (Orally)

97. A 60-year-old male is admitted with a 2days history of lower abdominal pain and marked vomiting. Onexamination he has abdominal swelling, guarding and numerous audible bowel sounds. What isthe likely diagnosis?
    A. Gallstone ileus
    B. Ischemic colitis
    C. Large bowel obstruction
    D. Sigmoid volvulus
    E. Small bowel obstruction

Ans. The key is D: sigmoid volvulus [History is not suggestive of ischemic colitis. There are no bowel sounds heard in gallstone ileus. Small bowel obstruction causes central abdominal pain, So given features with lower abdominal pain makes it more likely to be sigmoid volvulus].

98. A 60-year-old male is admitted with a 2days history of lower abdominal pain and marked vomiting. Onexamination he has abdominal swelling, guarding and numerous audible bowel sounds. What isthe likely diagnosis?
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Ans. The key is D: sigmoid volvulus [History is not suggestive of ischemic colitis. There are no bowel sounds heard in gallstone ileus. Small bowel obstruction causes central abdominal pain, So given features with lower abdominal pain makes it more likely to be sigmoid volvulus].

99. A 23-year-old woman presents with a 1 cm small smooth, firm, mobile mass in her left breast. She is very anxious. What is the most appropriate investigation?
    A. Mammography
    B. US breast
    C. FNAC
    D. Mammography and US

Ans. The key is B. US breast. [This is fibroadenoma of the breast (breast mouse) for which US of breast is the appropriate investigation and if it reveal a fibrous lump we shall go for FNAC. Another point a doctor should know that for any suspicious breast lesion radiology should must be done before options of biopsy and investigation of choice in radiology is US scan before the age of 35 and mammography after the age of 35. In that term also for this case the investigation of choice is US breast].

100. A 15-year-old girl presents with a 24 hours history of central abdominal pain, followed by theright iliac fossa pain, worse on coughing. She has fever and rebound in the right iliac fossa.What is the single most appropriate diagnosis?

A. Acute appendicitis
B. Biliary colic
C. Acute Cholecystitis
D. Ectopic pregnancy
E. Mesenteric thrombosis

Ans. The key is A. Acute appendicitis. [Central abdominal pain radiating to right iliac fossa is suggestive of acute appendicitis. Pain worse on coughing, fever and rebound tenderness in right iliac fossa are well known features of acute appendicitis].

101. A 30-year-old old woman has severe colic and upper abdominal pain radiating to the rightscapula and is vomiting. What is the single most likely diagnosis?

A. Biliary colic
B. Acute Cholecystitis
C. Ectopic pregnancy
D. Mesenteric thrombosis
E. Perforated peptic ulcer

Ans. The key is A. Biliary colic. [Biliary colic is characterized by the sudden onset of intense right upper abdominal pain that may radiate to the shoulder or right scapula. Sweating and vomiting are common. The pain tends to be steady and lasts up to three hours. Residual abdominal tenderness may occur].

102. A 12-year-old girl has central abdominal pain and is vomiting. On examination her abdomen is found to be distended with no rebound and a tender lump in the right groin. What is thesingle most likely diagnosis?

A. Spontaneous abortion
B. Strangulated hernia
C. Torsion ovarian cyst
D. Ulcerative colitis
E. Urinary tract infection

Ans. The key is B. Strangulated hernia. [Characteristics of strangulated hernias are as follows:

Patients have symptoms of an incarcerated hernia

Systemic toxicity secondary to ischemic bowel is possible

Strangulation is probable if pain and tenderness of an incarcerated hernia persist after reduction].

103. A 31-yr-old woman has severe colic & upper abdominal pain. She is febrile &. vomiting.Hematological investigations show a moderate leukocytosis. What is the single most likelydiagnosis?

A. Acute gastroenteritis
B. Acute pancreatitis
C. Acute appendicitis

D. Biliary colic
E. Acute Cholecystitis

Ans. The key is E. Acute cholecystitis. [Fever and leukocytosis favours the diagnosis of cholecystitis].

104. A 31-yr-old woman presents with acute severe abdominal pain. Her blood pressure is 100/60 and no abdominal signs are found. Hemoglobin level is 17g/dl and the plasma amylase is only mildly raised. What is the single most likely diagnosis?

A. Mesenteric thrombosis
B. Perforated peptic ulcer
C. Renal colic
D. Salpingitis
E. Spontaneous abortion

Ans. The key is A. Mesenteric thrombosis. [Specific hypercoagulable states are identified in 60% to 75% of patients with mesenteric venous thrombosis. These include heparin-induced thrombocytopenia, essential thrombocythemia, post-splenectomy thrombocytosis, hyperviscosity as in polycythemia vera, and neoplastic disorders. Mild rise in amylase rules out pancreatitis which is often associated with mesenteric thrombosis and high hemoglobin level points towards polycythemia vera as the cause of mesenteric thrombosis here].

105. A 30-year-old lady has developed breast abscess 2 days after delivery of her second baby. What is the single most likely causative organism?

A. E. Coli
B. Group B beta hemolytic Streptococcus
C. Staphylococcus albus
D. Staphylococcus feacalis
E. Staphylococcus aureus

Ans. E. Staphylococcus aureus.

24.UROLOGY

1. A 65-year-old man presents with painless hematuria, IVU is normal, prostate is mildly enlarged with mild frequency. What is the most appropriate next step?
   A. US Abdomen
   B. Flexible cystoscopy
   C. MRI
   D. Nuclear imaging

E. PSA

Ans. The key is B. Flexible cystoscopy. [Painless hematuria in an elderly (here 65 years old man) indicates carcinoma bladder for which flexible cystoscopy is done.Here BEP is not advanced to cause hemorrhage. There is mild enlargement of prostate and mild symptoms of prostatism and hemorrhage is unlikely at this initial stage of BEP which makes Bladder cancer as the likely cause of painless hematuria.It is also less likely to be prostate cancer as symptoms of prostatism are mild (indicates disease is not advanced). Moreover bleeding in cancer prostate is less common].

2. A 79-year-old anorexic male complains of thirst and fatigue. He has symptoms of frequency, urgency and terminal dribbling. His urea and creatinine levels are high. His serum calcium is 2.9 and he is anemic. His BP is 165/95 mmHg. What is the most probable diagnosis?
   A. BPH
   B. Prostate carcinoma
   C. Chronic pyelonephritis
   D. Benign nephrosclerosis

Ans. The key is B. Prostate Carcinoma. [Features goes in favour of prostatic carcinoma like- frequency, urgency and terminal dribbling are features of prostatism; Age, anorexia and anaemia are constitutional features of carcinoma prostate. Renal failure from ureteral obstruction in carcinoma prostate is a common presentation. Thirst is a feature of hypercalcaemia. Prostate biopsy is the confirmatory diagnosis and others like PSA is suggestive].

3. An 80-year-old man presented with pain in his lower back and hip. He also complains of waking up in the night to go to the washroom and has urgency as well as dribbling. What is the most likely diagnosis?
   A. BPH
   B. Prostatitis
   C. UTI
   D. Prostate carcinoma
   E. Bladder carcinoma

Ans. The key is D. Prostate carcinoma. [Age, nocturia, urgency and dribbling points towards prostate pathology. Pain of lower back and hip points towards probable bony metastases from prostate cancer. Blood test for PSA; Prostate biopsy; MRI (if initial biopsy is negative, to decide repeat biopsy) are to be done].

4. A 75-year-old alcoholic presents with a mass up to umbilicus, urinary dribbling, incontinence, and clothes smelling of ammonia. What is the next step in management?
   A. Urethral catheter
   B. Suprapubic catheter
   C. Antibiotics
   D. Condom catheter
   E. Nephrostomy

Ans. The key is A. Urethral catheter. [Alcoholism can cause urinary retention but it is a less common cause of retention].

5. A 64-year-old man has been waking up in the middle of the night to go to the bathroom. He also had difficulty in initiating micturition and complains of dribbling. A diagnosis of BPH was made after a transrectal US guided biopsy and the patient was prepared for a TURP. What electrolyte abnormality is highly likely due to this surgery?
   A. Hypokalemia
   B. Hypocalcemia
   C. Hyperkalemia
   D. Hyponatremia
   E. Hypernatremia

Ans. The key is D. Hyponatremia. [Absorption of fluid used for bladder irrigation to flush out blood clots and IV fluids all may lead to hypervolaemia and dilutional hyponatremia].

6. A 65-year-old man presented with frank hematuria. He has no other urinary symptoms. What is the most appropriate next step that will lead to the diagnosis?
   A. IVU
   B. US Abdomen
   C. Cystoscopy
   D. Mid-stream urine for culture
   E. Transrectal US

Ans The key is C. Cystoscopy. [Probable diagnosis is bladder cancer. Points in favour, Age 65, asymptomatic haematuria].

7. A patient after transurethral prostatic biopsy. What electrolyte imbalance can he develop?
   A. Hyperkalemia
   B. Hyponatremia
   C. Hypocalcemia
   D. Hypernatremia
   E. Hypercalcemia

Ans. The key is B. Hyponatremia. [Use of fluid for bladder irrigation may lead to dilutional hyponatremia].

8. A 75-year-old man with adenocarcinoma of the prostate which has spread outside the capsule of the gland has ARF (acute renal failure). What is the most appropriate next investigation?
   A. MRI spine
   B. Radionuclide bone scan
   C. Trans rectal US
   D. US pelvis
   E. US KUB

Ans. The key is E. US KUB. [extension beyond capsule may cause obstruction of ureters, causing loin pain, anuria, symptoms of acute kidney injury or chronic kidney disease (here ARF) ref: patient.info].

9. A 75-year-old war veteran complains of loss of appetite and says he has lost weight over the past few months. He says that he has passed some blood in his urine, however, he had no pain. A recent report shows that PSA >5.5ng/ml. how will you manage this patient?
   A. Radical prostatectomy
   B. TURP
   C. Cryosurgery
   D. Brachytherapy
   E. Irradiation

Ans. The key is A. Radical prostatectomy. This answer is controversial. [Though PSA is a bit higher than normal it is not confirmatory of carcinoma! But loss of appetite and weight loss are highly suggestive of cancer in this 75 yrs old man. Active Surveillance is offered first for Low Gleason score. especially at age of 75. and any other treatment depending on extension of tumor will be offered after excluding metastasis].

10. A 75-year-old man comes in complaining of difficulty in passing urine, poor stream and dribbling at the end of voiding and anorexia. US shows bilateral hydronephrosis. What is the cause of these findings?
    A. BPH
    B. Renal stones
    C. Bladder stones
    D. Prostatic ca
    E. UTI

Ans. The key is D. Prostatic ca. [Elderly patient of 75yrs with obstructive symptoms of lower urinary tract, bilateral hydronephrosis all can occur in BPH or ca prostate. Anorexia is clincher here. It is a feature of carcinoma rather than BPH].

11. A young boy has acute scrotal pain for a few hours. Exam: one testis is very painful to touch. He had this kind of pain before but it was mild and resolved itself within 30mins. What would you do next?
    A. Urgent exploration
    B. US
    C. Antibiotics
    D. IV fluids
    E. Doppler US

Ans. The key is A. Urgent exploration. [As sudden onset of severe pain likely diagnosis is torsion of testis. (infection takes a more prolonged course). Next step is urgent exploration].

12. A young man presents with sudden, severe pain and swelling in the scrotum. Exam: one testis seems higher than the other. What is the most probable diagnosis?
    A. Varicocele
    B. Hematocele

C. Testicular tumor
D. Epidiymo-orchitis
E. Testicular torsion

Ans. The key is E. Testicular torsion. [Sudden severe pain, scrotal swelling and higher position of the affected testis is diagnostic of testicular torsion. You may get further support from examining cremesteric reflex which is absent in testicular torsion].

13. A 65-year-old man complains of hematuria, frequency, hesistancy and nocturia. He reports that on certain occasions he finds it difficult to control the urge to pass urine. Urine microscopy confirms the presence of blood but no other features. What is the most porbable diagnosis?
    A. BPH
    B. Bladder ca
    C. Prostatic ca
    D. Pyelonephritis
    E. Prostatitis

Ans. There are two keys A. BPH and C. Prostatic carcinoma. [There are no constitutional features of carcinoma. Bleeding is more common in BPH and occurs in a minority of cases and much less common in prostatic carcinoma. Features given are of prostatism only which favours the diagnosis of BPH].

14. A 79-year-old man who is being treated with GnRH antagonist for proven adenocarcinoma of the prostate attends a follow up session. What is the most appropriate investigation?
    A. Serum AFP
    B. Serum PSA
    C. Serum acid phosphates conc
    D. Serum ALP isoenzyme conc

Ans. The key is B. Serum PSA. [Serum PSA is used to assess the progress of treatment. (If a man's PSA level rises after prostate cancer treatment, his doctor will consider a number of factors before recommending further treatment. Additional treatment based on a single PSA test is not recommended. Instead, a rising trend in PSA level over time in combination with other findings, such as an abnormal result on imaging tests, may lead a man's doctor to recommend further treatment)].

15. A 61-year-old man, known smoker, comes to the hospital with complaints of painless hematuria, urgency and dysuria. He has been worried about his loss of weight and reduced general activity. Which investigation would be diagnostic of his condition?
    A. Urine microscopy
    B. IVU
    C. CT
    D. Cystoscopy
    E. US abdomen
    F. KUB
    G. Cystoscopy with biopsy
    H. Mid stream urine for culture
    I. Trans rectal US

Ans. The key is G. Cystoscopy with biopsy. [Painless hematuria in elderly man is due to Ca of bladder usually and in bladder cancer there are UTI like symptoms like urgency, dysuria. Also constitutional symptom like weight loss and reduced genral activity are feature of carinoma].

16. A 32-year-old man presents with 3 days of scrotal pain. Examination: thickening of the left testis and it is hot to touch. What is the most appropriate management?
    A. Analgesia
    B. Reassurance
    C. Antibiotics
    D. Referral to surgeon

Ans. The key is C. Antibiotics. [scrotal pain of 3 days with thickening of testis which is hot to touch suggests epididymoorchitis, which is treated with antibiotics].

17. A man presented with carcinoma of the bladder and has been working in factories. He wants to know what dye has caused it. What is the single most likely cause?
    A. Aniline
    B. Asbestos
    C. Latex
    D. Silica

Ans. The key is A. Aniline. [Aniline dye is a well-known cause of bladder cancer].

18. A 25-year-old man attended in urological OPD has single testis. He was investigated and other testis was located in the abdomen. What is the best management plan for this patient?
    A. Short trial of HCG
    B. Orchidectomy
    C. Orchidopexy
    D. Reassurance
    E. IV testosterone

Ans. The key is B. Orchidectomy. [Ectopic testis is prone to develop testicular cancer and therefore it should be surgically removed].

19. A 75-year-old man has urinary symptoms of hesitancy, frequency and nocturia. Rectal examination: large hard prostate. What is the most appropriate investigation?
    A. CA 125
    B. CA 153
    C. CA 199
    D. CEA
    E. PSA (prostate specific antigen)

Ans. The key is E. PSA. [Urinary symptoms and hard prostate on PR suggests prostatic cancer for which PSA should be done].

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20. A 70-year-old man presents with a fluctuant swelling of the scrotum which feels like worms when he is standing but regresses when he lies down. What is the most probable diagnosis?
    A. Varicocele
    B. Hematocele
    C. Testicular ca
    D. Epidydimal cyst
    E. Saphena varix

Ans. The key is A. Varicocele. [Fluctuant swelling of the scrotum which feels like worms are suggestive of varicocele].

25.PAIN MANAGEMENT AND PALLIATIVE CARE

1. A patient who was previously on 120mg slow release oral morphine has had his dose increased to 200mg. He is still in significant pain. He complains of drowsiness and constipation. What is the next step in the management?
    A. Increase slow release morphine dose
    B. Fentanyl patch
    C. Replace morphine with oral hydromorphone
    D. Replace morphine with oxycodone
    E. Subcutaneous morphine

Ans. The key is D. Replace morphine with oxycodone.

2. A 56-year-old patient whose pain was relieved by oral Morphine, now presents with progressivelyworsening pain relieved by increasing the dose of oral morphine. However, the patient complainsthat the increased morphine makes him drowsy and his is unable to carry out his daily activities.What is the next step in his management?
    A. Oral oxycodone
    B. Oral tramadol
    C. PCA
    D. IV Fentanyl
    E. Diamorphine

Ans. The key is A. Oral oxycodon.

3. A 50-year-old man has had anterior resection of the rectum for carcinoma. He expressed concerns about control of post-op pain in discussions with the anaesthetist before surgery. What is the best management strategy?
    A. Oral diclofenac
    B. Oral codeine
    C. IM morphine
    D. IM dihydrocodeine
    E. Ondansetron oral

Ans. The key is C. IM morphine. [Some post operative pain is severe pain which needs strong opioid analgesics].

4. A man was operated for colorectal ca. His pain is relieved with morphine 60mg bd PO but now he can't swallow medications. What will be the next regimen of analgesic administration?
   A. Oxycodone
   B. Fentanyl patch
   C. Morphine 60mg IV/d
   D. Morphine 240mg IV/d

Ans. The key is B. Fentanyl patch.

5. An 84-year-old man got surgical pain which is well controlled by oral morphine 60mg BD. However, now this pt is unable to swallow. What is the most appropriate next step?
   A. Morphine 60mg state
   B. Morphine 60mg TDS
   C. Oxycodone 10mg OD
   D. Morphine 60mg IV
   E. Fentanyl patches

Ans. The key is E. Fentanyl patches.

6. A 61-year-old man who had stroke 2 year ago is on aspirin. He has RA (rheumatoid arthritis) but suffers from pain and can't tolerate it. He is taking senna for constipation. What is the best medicine to relieve his pain?
   A. DMARDs
   B. Ibuprofen
   C. Co-codamol
   D. Paracetamol

Ans. The key is D. Paracetamol. [DMARDs are not painkillers but prevents disease progression in long term. Co-codamol will cause constipation. Patient is already taking laxative! So Co-codamol is not the option. NSAIDs are avoided in one who is already taking aspirin. Here paracetamol is the answer. Sometimes we undertreat patients when other options are risky to avoid more severe complication].

7. A 48-year-old patient after surgical removal of mandibular carcinoma presents with perioral paresthesia and severe pain which is not relieved by oral morphine. What is the next step in treating this patient?
   A. Oral amitryptiline
   B. Oral oxycodone
   C. PCA
   D. IV morphine
   E. Fentanyl patch
   F. Gabapentine

Ans. The key is F. Gabapentine. [This pain is likely due to nerve injury during operation and both amitryptilin and Gabapentine are 1st line for neuropathic pain].

8. A patient whose pain is not relieved by oral codeine. What is the best management?
   A. Oral oxycodone
   B. Co-codamol
   C. PCA
   D. IV morphine
   E. Oral morphine

Ans. The key is E. Oral morphine.

9. A patient was complaining of pain within 6 hours after his appendectomy for gangrenous appendix. What medicine is the best option for his pain relief?
   A. IV morphine
   B. Diclofenac per rectal
   C. PCA
   D. Tramadol

Ans. The key is D. Tramadol.

10. A 65-year-old has terminal cancer and his pain is relieved by a fentanyl patch but he now complains of shooting pain in his arm. Which of the following will add to his pain relief?
    A. Gabapentin
    B. Radiotherapy
    C. Amitryptiline
    D. Morphine

Ans. The key is A. Gabapentin. [Shooting in the arm indicates neuropathic pain for which both amytriptiline and gabapentin can be used].

11. Jean is a 72-year-old woman with recurrent bowel cancer following a hemi-colectomy 2 years ago. She is known to have both local recurrence and liver metastasis and her pain has been under control on MST 90mg bd. She has had quite severe pain in the RUQ for the past hour despite having taken her normal dose of MST. You find that she has an enlarged liver which is hard and irregular. There is marked localised tenderness over the right lobe of her liver. Her abdomen is otherwise soft and non-tender and the bowel sounds are normal. She is apyrexial. The treatment of choice would be?
    A. Oral NSAIDs
    B. TENS
    C. radio therapy to the liver
    D. IM diamorphine
    E. Paracetamol
    F. Prednisolone
    G. Physiotherapy
    H. epidural anaesthetic
    I. Pitocin
    J. Aspirin

Ans. The key is D. IM diamorphine.

26. PHARMACOLOGY

1. A 76-year-old is treated for HTN (hypertension). He suffers from pain and redness at the MTP joint of his right big toe. Which of the following anti-HTN cause this symptoms?
   A. Losartan
   B. Bendroflumethiazide
   C. Ramipril
   D. Bisoprolol
   E. Verapamil

Ans. The key is B. Bendroflumethiazide [Thiazide diuretics may cause hyperuricemia and thus cause or precipitate gout].

2. A 4-year-old boy with a febrile convulsion lasting eight minutes has been given IV lorazepam to control them. What is the single most likely serious side effect?
   A. Amnesia
   B. Anaphylactic shock
   C. Apnea
   D. Bronchospasm
   E. Cardiac arrhythmia

Ans. The key is C. Apnoea. [Respiratory depression may occur following lorazepam administration].

3. A 71-year-old man presents with coarse tremor. He is on some meds. Which one can be the reason for the tremor?
   A. Lithium
   B. Diazepam
   C. Fluoxetine
   D. Imipramine
   E. Haloperidol

Ans. The key is A. Lithium. [Lithium overdose can cause coarse tremor].

4. A 40-year-old manic depressive is noted to have high serum levels of lithium and profound hypokalemia. His GP had started him on anti-hypertensive. Choose the single most likely cause?
   A. Verapamil
   B. Amiodarone
   C. Ranitidine
   D. Lithium
   E. Thiazide

Ans. The key is E. Thiazide. [Thiazide was prescribed for hypertension and when lithium was prescribed its level increased due to thiazide (Thiazide diuretics have a **significant potential to increase serum lithium concentrations**. These diuretics induce a natriuresis that leads to a compensatory increase in the reabsorption of sodium (and lithium) in the proximal tubule) and thiazide also caused hypokalemia resulting the given picture].

5. All the following drugs do not cause bronchoconstriction except?
   A. Atenolol
   B. Salbutamol
   C. Salmetrol
   D. Ipratropium bromide
   E. Cocaine

Ans. The key is A. Atenolol.

6. A 32-year-old man on psychiatric medications complains of inability to ejaculate. Which drug is most likely to cause these symptoms?
   A. Lithium
   B. Haloperidol
   C. Chlorpromazine
   D. Fluoxetine
   E. Clozapine

Ans. The key is D. Fluoxetine. [SSRIs are frequently associated with delayed ejaculation].

7. A 34-year-old diabetic patient is undergoing contrast radiography. What measure should be taken to prevent renal damage with contrast dye?
   A. Reduce contrast dye
   B. Plenty of fluids
   C. NSAIDS
   D. ACEi
   E. IV dextrose

Ans. The key is B. Plenty of fluids.

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8. A 35-year-old IVDA (Intra Venous Drug Abuser) on penicillin and flucloxacillin for cellulitis now presents with jaundice, pale stools and dark urine. What is the single most likely diagnosis?
   A. Hep A
   B. Cholestatic jaundice
   C. Chronic active hepatitis
   D. Primary biliary cirrhosis
   E. Hep B

Ans. The key is B. Cholestatic jaundice. [Flucloxacillin can cause cholestasis and hence cholestatic jaundice].

9. A 72-year-old man has been on warfarin for 2 years because of past TIAs and strokes. What is the most important complication the patient should be careful with?
   A. Headache
   B. Osteoporosis
   C. Ear infection

B. Limb ischemia
E. Diarrhea

Ans. The key is A. Headache. [Headache from intracranial hemorrhage is more important complication about which patient should be careful with (it is more important than osteoporosis)].

10. A patient on antihypertensive drugs develops hyperkalemia. Which anti-hypertensive is likely to cause it?
    A. Ramipril
    B. Lorsartan
    C. Thiazide
    D. Nifedipine
    E. Furosemide

Ans. The key is A. Ramipril. [Both ramipril and losartan can cause hyperkalemia].

11. A boy was rushed to the ED unconscious after he had taken methadone belonging to the sister. He was given naloxone and he regained consciousness. After a while he started getting drowsy again. What is responsible for his present drop in level of consciousness?
    A. Naloxone is absorbed faster than methadone
    B. Methadone is absorbed faster than naloxone
    C. He has also taken another substance apart from methadone
    D. The methadone had already caused some brain damage
    E. Naloxone is eliminated faster than methadone

Ans. The key is E. Naloxone is eliminated faster than methadone.

12. A lady with depression has a bag full of medicine. She now presents with coarse tremors. Which drug caused her symptoms?
    A. Lithium
    B. Thyroxine
    C. Amitriptyline
    D. Sodium valproate
    E. Tetrabenazine

Ans. The key is D. Sodium valproate. [As bag is not empty but full of medicine this is not a case of over-dose. Side effect of lithium in therapeutic range is fine tremor. Sodium valproate (a well known mood stabilizer) can cause coarse tremor in therapeutic range].

13. A patient taking doxycycline complains of nausea, indigestion, abdominal pain and vomiting. What will you advise?
    A. Take it after meals
    B. Take it before meals
    C. Stop the drug
    D. Take antiacids
    E. Take antiemetic

Ans. The key is A. Take it after meal.

14. A 72-year-old lady is drowsy and her relatives want to take her home. She has been prescribed diazepam 2.5mg. What is the best delivery route?
    A. Oral
    B. IV
    C. IM
    D. Per rectal
    E. SC

Ans. The key is D. Per rectal.

15. A man presents with inoperable carcinoma and back pain. His pain has been well controlled with morphine but he develops vomiting. Morphine was stopped and he was started on metoclopramide and fentanyl patches. He then develops neck stiffness and fever. What is the cause of these symptoms?
    A. Metoclopramide
    B. Fentanyl
    C. Morphine
    D. Meningitis
    E. Metastasis

Ans. The key is A. Metoclopramide. [Extrapyramidal effects like neck stiffness is common side effect of metoclopramide and also there may occur rise of temperature].

16. What are the side effects of thiazide diuretics?
    A. Hypocalcemia
    B. Hyponatremia
    C. Hypernatremia
    D. Hyperkalemia

Ans. The key is B. Hyponatremia. [Thiazide causes hypercalcemia, hypokalemia and hyponatremia].

17. A 4-year-old boy ingested his grandmother's medicine and has developed dilated pupil. What is the cause?
    A. Amitryptiline
    B. Paracetamol
    C. Iron
    D. Digoxin

Ans. The key is A. Amitryptiline.

18. A patient is on loop diuretics. What effect do loop diuretics produce?
    A. Low Na+, low K+
    B. Low Na+, normal K+
    C. Normal Na+, normal K+
    D. High Na+, low K+

E. High Na+, high K+

Ans. The key is A. Low Na+, Low K+. [Loop diuretics causes hyponatremia and hypokalemia].

19. A patient being sedated with fentanyl develops severe respiratory depression. This is best reversed using?
    A. Ethanol
    B. Naloxone
    C. Phyostigmine
    D. Atropine
    E. Methylene blue
    F. Diphenhydramine
    G. Calcium disodium ethylenediamine tetra-acetic acid
    H. Deferoxamine mesylate
    I. Flumazenil
    J. Folic acid

Ans. The key is B. Naloxone. [Opioid Antagonist, reverses the effects of fentanyl, though it has to be administered for a longer period of time due long half-/life of fentanyl].

27. ACCIDENT AND EMERGENCY

1. A 3-year-old child has been brought with facial lacerations. On examination he has some cuts over his right cheek and under the eye. The GCS on initial evaluation is 15. What is the appropriate next investigation?
    A. Skull XR
    B. Facial XR
    C. CT scan
    D. MRI
    E. Observation

Ans. The key is B. Facial X-ray. [Normal GCS makes intracranial lesion less likely. As there is facial injury to exclude any facial bone fracture we can do facial X-ray].

2. A 24-year-old biker has been rescued after being trapped under rocks for almost 12 hours. He complains of reddish brown urine. His creatinine is 350umol/L and his urea is 15mmol/L. What is the most imp step in the management of this patient?
    A. Dialysis
    B. IV NS
    C. IV dextrose
    D. IV KCl
    E. Pain relief

Ans. Key is B. IV NS. [It is a case of rhabdomyolysis which is initially treated with IV NS].

3. A man brought into the emergency department after being stabbed in the chest. Chest is bilaterally clear with muffled heart sounds. BP is 60/nil. Pulse is 120bpm. JVP raised. What is the most likely diagnosis?
   A. Pulmonary embolism
   B. Cardiac tamponade
   C. Pericardial effusion
   D. Hemothorax
   E. Pneumothorax

Ans. The key is B. Cardiac tamponade. [Chest is clear, so there is no pneumothorax or pleural effusion. Muffled heart sound is due to fluid in pericardial space, low BP from reduced chamber expansion due to pericardial fluid's pressure and restricted right heart expansion causes raised JVP. The three classic signs (Beck's triad) that indicate cardiac tamponade are: **Low pressure in the arteries (hypotension) Bulging (distended) neck veins**. **Muffled heart sounds**].

4. A young man is brought to the emergency department after an RTA. His GCS on initial evaluation is 6. What is the most appropriate next step?
   A. CT
   B. MRI
   C. IV fluids
   D. Skull XR
   E. Secure airway

Ans. The key is E. Secure airway.

5. A butcher stabbed accidently his groin. He bled so much that the towel was soaked in blood and BP 80/50mmHg, pulse 130bpm. What % of circulatory blood did he lose?
   A. <15%
   B. 15-30%
   C. 30-40%
   D. 40-50%
   E. >50%

Ans. The key is C. 30-40%

Classification:

Class 1 up to 15% of blood volume lost: pulse <100; systolic BP normal; pulse pressure normal; Respiratory rate 14-20; urine output greater than 30 ml/hour.

Class 2 15%-30% blood volume lost: pulse 100-120; systolic blood pressure normal; pulse pressure decreased; respiratory rate 20-30; urine output 20-30 ml/hour.

Class 3 30%-40% blood volume lost: pulse 120-140; systolic BP decreased; pulse pressure decreased, respiratory rate 30-40; urine output 5-15 ml/hr

Class 4, blood loss of greater than 40%: pulse rate >140; systolic BP decreased; pulse pressure decreased' respiratory rate >35; urine output negligible.

6. A girl with history of allergies visited a friend's farm. She got stridor, wheeze and erythematous rash. What is the most appropriate treatment?
   A. 0.25ml IM adrenaline
   B. 0.25ml PO adrenaline
   C. 0.25ml IV adrenaline
   D. IV chlorphearamine

Ans. The key is A. 0.25 ml IM adrenaline [Presence of stridor and wheeze are suggestive of anaphilaxis and treatment option is IM adrenaline].

7. A 23-year-old man has been stabbed in the back and has SOB. The trachea is not deviated, he has engorged neck veins and absent breath sounds on the right. What is the most appropriate diagnosis?
   A. Tension pneumothorax
   B. Cardiac tamponade
   C. Simple pneumothorax
   D. Hemothorax
   E. Pleural effusion

Ans. 1. The key is A. Tension pneumothorax. [Points in favour: i) Stab wound in the back ii) SOB iii) Engorged neck vein iv) Absent breath sound].

8. A 23-year-old male has a tonic clonic seizure whilst at college. His GCS is 12, BP 120/77mmHg, Heart rate 99bpm. What is the most appropriate investigation for his condition?
   A. CT
   B. MRI
   C. Serum blood glucose
   D. Serum drug levels

Ans. The key is C. Serum blood glucose [it is also possible that he may have taken drug, even though first we have to do serum glucose as low blood glucose can be very easily managed and it needs urgent management to save life. If it is excluded then we can look for other causes which may be not fatal in short time].

9. A young footballer has collapsed during a game. During initial evaluation: RR 14/min, Pulse 88bpm, BP 110/70mmHg. He seems to be sweating and muttering some incomprehensible words. What is the most important next step?
   A. CT
   B. MRI
   C. Blood sugar
   D. Body temp
   E. IV fluids

Ans. The key is C. Blood sugar. [Normal vital signs, sweating and collapse during exercise gives suspicion of hypoglycemia which is very easy to treat but fatal if left unrecognized. So most important next step is to check the blood sugar].

10. A 47-year-old man met with a RTA. He has multiple injuries. Pelvic fracture is confirmed. He has not passed urine in the last 4 hours. What is the next appropriate management for this patient?
    A. Urethral catheter
    B. Suprapubic catheter
    C. IV fluids
    D. IV furosemide
    E. Insulin

Ans. The key is B. Suprapubic catheter. [In pelvic fracture there is chance of urethral rupture and hence displacement of urethral catheter is likely while try to place it].

11. A 27-year-old woman has hit her neck in an RTA without complains of tingling or motor loss. What is the next most appropriate investigation?
    A. MRI
    B. X-ray
    C. CT cervical
    D. Diagonal X-ray

Ans. The key is B. X-ray. [As there is no neurological deficit we can exclude any fracture by x-ray first]. [Diagonal x ray means ,oblique view of cervical spine. By this view we can assess facet joint arthopathy. This isn't related to RTA].

12. A man has discharge from his left ear after a fight. Where is the discharge coming from?
    A. CSF
    B. Inner ear
    C. Outer ear
    D. Brain

Ans. The key is A. CSF. [probable fracture base of skull].

13. A 29-year-old male brought to emergency department in unconscious state. There is no significant past history. Which of the following should be done as the initial investigation?
    A. CT
    B. Blood glucose
    C. ABG
    D. MRI
    E. CBC

Ans. The key is B. Blood glucose.

14. An old lady 72-year-old staying at a nursing home for a few years, a known Hypertensive on regular treatment presented with sudden dysphagia while eating with drooling of saliva and require urgent investigation. What would be your next step?

A. Ba swallow
B. Chest CT
C. Endoscopy
D. Laryngoscopy
E. CXR
F. Endoscopy with biopsy

Ans. The key is C. Endoscopy. [Probable impacted food bolus (usually meat)which can be visualized and removed with the aid of endoscopy].

15. A 34-year-old man after a car crash is in the emergency department and deteriorating. His GCS has fallen from 13 to 7. What is the most appropriate next step?
    A. CT
    B. Burr hole
    C. MRI
    D. Intubation
    E. IV fluids

Ans. The key is D. Intubation. [ABC protocol].

16. 34-year-old man was brought to the emergency department after aRTA (road traffic accident). BP 50/0mmHg and chest wall not moving symmetrically, RR (respiratory rate) is 34bpm. What would be initial action?
    A. IV fluid infusion
    B. Intubation and ventilation
    C. CT chest
    D. Transfer to ITU

Ans. The key is B. Intubation and ventilation [ABC protocol].

17. A young man who was held by the police was punched while in custody. He is now cyanosed and unresponsive. What is the 1st thing you would do?
    A. IV fluids
    B. Clear airway
    C. Turn pt and put in recovery position
    D. Give 100% oxygen
    E. Intubate and ventilate

Ans. The key is B. Clear airway. [ABC protocol].

18. A 16-year-old teenager was brought to the emergency department after being stabbed on the upper right side of his back. Erect CXR revealed homogenous opacity on the lower right lung, trachea was centrally placed. What is the most probable explanation for the X-ray findings?
    A. Pneumothorax
    B. Hemothorax
    C. Pneumonia
    D. Tension pneumothorax

E. Empyema

Ans. The key is B. Hemothorax. [In blunt trauma there may be hemo-pneumothorax but in sharp wound like stabbing there may occur only hemothorax].

19. A 14-year-old boy fell and hit his head in the playground school. He didn't lose consciousness. He has swelling and tenderness of the right cheek with a subconjuctival hemorrhage on his right eye. What is the most appropriate initial investigation?
    A. CT brain
    B. EEG
    C. MRI
    D. Skull XR
    E. Facial XR

Ans. The key is E. Facial X-ray. [There is no sign of basal fracture (Panda sign is suggestive of basal fracture, not subconjunctival hemorrhage- unless posterior border of hemorrhage is not visible) and no indication of CT scan (there are some criteria for CT scan which are not fulfilled here)].

20. A patient was admitted to the emergency department after a head injury. When examined on arrival his GCS was 15 and then at night his GCS deteriorated to 12. What investigation should be done?
    A. CT head
    B. XR skull
    C. IV mannitol
    D. Drill a burr hole
    E. Shift to OR

Ans. The key is A. CT head. [Initial GCS 15 followed by later GCS 12 are suggestive of intracranialhaemorrhage. So the best investigation to be done is CT head].

21. A 32-year-old miner is rescued after being trapped under a fallen rock for 4h. After applying a bladder catether, 15-20ml of reddish brown urine was obtained. HR 120bpm, SBP 100mmHg. What would be the next appropriate step?
    A. Dopamine IV
    B. Fluid challenge
    C. Furosemide IV
    D. 20% Mannitol IV
    E. Antibiotics

Ans. The key is B. Fluid challenge. [The diagnosis is rhabdomyolysis. So IV fluid is the next appropriate step].

22. A 27-year-old man presents to the emergency department after an RTA (road traffic accident) where his foot was stuck under a truck for several hours. He now has swelling on the foot. Examination: foot tenderness, loss of sense in the space between the 3rd metatarsal and big toe and his dorsalis pedis is not felt. What is the most likely diagnosis?
    A. Compartment syndrome

B. Arterial rupture
C. Arterial embolus
D. DVT
E. Fibular fracture

Ans. The key is A. Compartment syndrome. [Acute compartment syndrome occurs after a traumatic injury such as a car crash. The trauma causes a severe high pressure in the compartment which results in insufficient blood supply to muscles and nerves. Acute compartment syndrome is a medical emergency that requires surgery to correct. If untreated, the lack of blood supply leads to permanent muscle and nerve damage and can result in the loss of function of the limb].

23. A man presents with abdominal pain, vomiting, pulse 120bpm, BP 90/60mmHg and a rigid abdomen. His chest is clear. What is the immediate management?
    A. Call radiology
    B. Admit to medical ward
    C. Urgent admission to ITU (Intensive Therapy Unit)

Ans. The key is C. Urgent admission to ITU.

24. A 34-year-old man was involved in a RTA and whilst in the ambulance his GCS deteriorated and RR increased from 30-48. What is the most appropriate management for this patient?
    A. IV fluid
    B. Needle thoracocentesis
    C. 100% oxygen
    D. Portable XR

Ans. The key is C. 100% oxygen.

25. A 24-year-old male was trying to move his wardrobe but it fell on his thigh. It was there for a very long time before someone was able to remove it. When he was seen in emergency department he had casts in his urine but no RBCs. Other inv showed hypocalcemia and high serum creatinine. What is the cause for his renal failure?
    A. Acetylcholine
    B. Myoglobin
    C. Myotroponin
    D. Acetyl acetate

Ans. The key is B. Myoglobin. [The likely diagnosis is Rhabdomyolysis where renal failure occurs due to myoglobin (myoglobinsare released after breakdown of skeletal muscles)].

26. A young male met with an RTA and is suspected to have a femur fracture. His BP is 90/60mmHg. What is the next immediate action?
    A. XR
    B. IV fluids
    C. Put leg splint
    D. Send bloods for inv
    E. US

Ans. The key is B. IV fluids.

27. A 27-year-old patient met with a RTA (road traffic accident). While the NGT (nasogastric tube) is passing, bowel sounds are heard in the chest. CXR shows NGT curled. What is the diagnosis?

A. Diaphragm rupture

B. Aortic rupture

C. Splenic rupture

D. Bowel rupture

E. Liver rupture

Ans. The key is A. Diaphramatic rupture.

28. A young man was knocked down during a fight in the waiting room of the emergency department. He is nowunconscious and unresponsive. What is the 1st thing you would do?

A. Turn patient and put in recovery position

B. Put airway

C. Endotracheal intubation

D. Assess GCS

E. Start CPR

Ans. The key is B. Put airway. [ABC protocol].

29. A 45-year-old heroin addict was involved in a car crash and is now paraplegic. During the 1st week of hospital stay he cried everyday because he couldn't remember the accident. What is the most likely diagnosis?

A. PTSD

B. Severe depression

C. Organic brain damage

Ans. The key is C. organic brain damage.

30. A 34-year-old man after an RTA was brought to the emergency department. His BP is 50/0mmHg and chest wall with asymmetrical movement, RR (respiratory rate) 34bpm. What would be the initial action?

A. IV fluid infusion
B. Intubation and ventilation
C. CT chest
D. Transfer to ITU

Ans. The key is B. Intubation and ventilation.

31. A 45-year-old female comes to the emergency department while having a generalized tonic clonic seizure and she has having difficulty breathing and is cyanosed. What is the treatment option for her?
    A. Secure airways
    B. IV diazepam
    C. IV phenytoin
    D. Oxygen mask

Ans. A. Secure airways. [Breathing difficulty with cyanosis may indicate saliva, blood, foreign body (as denture), fall back of tongue etc. for which 1st action is to secure airway].

32. An 87-year-old woman with a history of HTN has acute breathlessness. She has a RR (respiratory rate) of 32bpm, widespread lung crackles, pulse 120bpm, BP 160/90mmHg and elevated venous pressure. Her peripheral O2 saturation is 85%. What is the single most appropriate initial management?
    A. IV antibiotics
    B. IV furosemide
    C. Nitrate infusion
    D. Neb. Salbutamol
    E. 100% oxygen

Ans. The key is E. 100% oxygen. [Most appropriate initial management is E. 100% oxygen.Oxygen saturation is low. So we have to give oxygen initially].

33. A patient is unresponsive and cyanosed. What is the most definitive 1st step in management?
    A. Chest compressions
    B. Check airway
    C. Call 999
    D. Mouth to mouth
    E. Recovery position

Ans. The key is B. Check airway.

34. A 69-year-old male presented with sudden onset of dysphagia. He is neither able to swallow liquid nor solid, he recently had a denture fitting. What is the most probable diagnosis?
    A. Foreign body
    B. Plummer vinson syndrome
    C. Achalasia cardia
    D. Esophageal rupture

E. Esophageal ca 1

Ans. The key is A. Foreign body. [Sudden onset of dysphagia to both liquid and solid and recent history of fitting denture suggests foreign body (denture) in oesophagus].

35. A man got his hand caught in machinery at work. The fingers are swollen but the XR shows no fracture. What is the most appropriate management?
    A. Splint
    B. Put in plaster
    C. Broad arm sling for 1 week
    D. Elevate in high sling for 2 days
    E. Neighbor strapping

Ans. The key is D. Elevate in high sling for 2 days. [Extravasetion of blood caused this swelling along with inflammation for which best option is elevate in high sling for 2 days which will help improve symptom by gravitational shift of fluid from hand].

36. A 10-year-old boy has fallen from a tree and injured his right chest. He has pain and difficulty breathing. He is tachypenic and tender with an area of paradoxical chest wall movement on the right side. What is the single most likely diagnosis?
    A. Diaphragmatic rupture
    B. Flial chest
    C. Fracture ribs
    D. Hemothorax
    E. Tension pneumothorax

Ans. The key is B. Flial chest. [In flial chest multiple adjacent ribs are broken in multiple places, separating a segment, so a part of the chest wall moves independently. Pain, difficulty breathing, tachypnea and tender area of chest wall movement suggest flial chest].

37. A 30-year-old woman has injured her left lower chest in a RTA (road traffic accident). She has BP80/50mmHg, pulse120bpm. Auscultation of chestbowel sounds present. What is the single most likely diagnosis?
    A. Diaphragmatic rupture
    B. Flail chest
    C. Fx ribs
    D. Ruptured esophagus
    E. Tension pneumothorax

Ans. The key is A. Diaphragmatic rupture. [Bowel sound present on auscultation of chest following RTA causing lower chest injury is suggestive of diaphragmatic rupture].

38. A 40-year-old man has fallen off a roof. He is shocked and has chest pain. There is a delay between the radial and femoral pulse. His CXR shows widening of the mediastinum. What is the single most likely diagnosis?
    A. Cardiac tamponade
    B. Diaphragmatic rupture

C. Fx ribs
D. Tension pneumothorax
E. Traumatic rupture of aorta

Ans. The key is E. Traumatic rupture of the aorta. [A traumatic aortic disruption is caused by a rapid acceleration (or deceleration) causing a tear in the aorta. Normally this is immediately fatal, but those who survive may show a widened mediastinum on CXR. This can be confirmed with CT scan or angiography of the aorta and requires prompt surgical correction. Stable the haemodynamics and surgical correction].

39. A 60-year-old man is brought to the emergency department in an agitated state. He is lashing out violently. Which drug in low dosage due to its relative lack of autonomic side effects is a drug of choice in the treatment of agitation in this patient?
    A. Haloperidol
    B. Diazepam
    C. Fluoxetine
    D. Clozapine
    E. Chlorpromazine

Ans. The key is B. Diazepam. [Haloperidol has autonomic side effects].

40. A 35-year-old man skidded on a wet road while riding his motorbike at a speed of 70mph. He has a large hematoma on temporal scalp, some bruises on chest wall and abdomen and a deformed thigh. GCS 11/15. High flow oxygen via mask given. Most immediate radiological investigation required during initial resuscitation phase?
    A. CXR
    B. CT brain
    C. CT abdomen
    D. XR femur

Ans. The key is A. CXR. [CXR may reveal possible chest structure trauma requiring urgent attention which may be life saving while brain lesion need time consuming CT and treatment and fracture femur may be managed taking more time].

28. ENT

1. A 5-year-old girl had earache and some yellowish foul smelling discharge, perforation at the attic and conductive hearing loss. She has past historyof ear infections. What is the most appropriate diagnosis?
    A. Acute OM
    B. OM with effusion
    C. Acquired cholesteatoma
    D. Congenital cholesteatoma
    E. Otitis externa

Ans. The key is c. Acquired cholesteatoma. [Acquired cholesteatomas develop as a result of chronic middle ear infection and are usually associated with perforation of the tympanic membrane at the attic (mass is seen in attick with perforation at pars flaccida- in contrast to medial to tympanic membrane which is in congenital). Clinical presentation usually consists of conductive hearing loss, often with purulent discharge from the ear].

In congenital:
- mass medial to the tympanic membrane
- normal tympanic membrane
- no previous history of ear discharge, perforation or ear surgery].

2. A 30-year-old man presents with a 5cm neck mass anterior to the sternocleido-mastoid muscle on the left side in its upper third. He states that the swelling has been treated with antibiotics for infection in the past. What's the most likely cause?
   A. Branchial cyst
   B. Parotitis
   C. Pharyngeal pouch
   D. Thyroglossal cyst
   E. Thyroid swelling

Ans. The key is A. Branchial cyst. [i) Branchial cyst is anterior triangular lump. (parotid is also anterior triangular lump but parotitis regresses with appropriate treatment i.e. becomes normal in size). ii) pharyngeal pouch is posterior triangular lump. iii) Thyroglossal is midline lump. iv) thyroid swelling moves with swallowing].

3. A 30-year-old man complains of hoarseness of voice. Examination: unilateral immobile vocal cord. What is the most probable diagnosis?
   A. Graves disease
   B. Hematoma
   C. Unilateral recurrent laryngeal nerve injury
   D. External laryngeal nerve injury
   E. Tracheomalacia

Ans. The key is C. unilateral recurrent laryngeal nerve injury.

4. A 20-year-old pop star singer complains of inability to raise the pitch of her voice. She attributes this to the thyroid surgery she underwent a few months back. What is the most likely diagnosis?
   A. Thyroid storm
   B. Bilateral recurrent laryngeal nerve injury
   C. Unilateral recurrent laryngeal nerve injury
   D. External laryngeal nerve injury
   E. Thyroid cyst

Ans. The key is D. External laryngeal nerve injury. [External laryngeal nerve functions to tense the vocal cords by activating the cricothyroid muscle, increasing pitch].

5. A 10-year-old boy presents with nose bleed. What measure should be taken to stop the bleeding?
   A. Press base of the nose
   B. Ice packs
   C. Press soft parts of the nose
   D. Start tranexemic acid
   E. IV fluids

Ans. The key is C. Press soft parts of the nose.

6. An 8-year-old returned from Spain with severe pain in one ear. Examination: pus in auditory canal, tympanic membrane looks normal. What is the treatment option?
   A. Gentamicin topical
   B. Amoxicillin PO
   C. Analgesia
   D. Amoxicillin IV

Ans. The key is A. Gentamycin topical. [Diagnosis is otitis externa].

7. Patient presented with hemoptysis 7day post-tonsillectomy. What is the next step?
   A. Packing
   B. Oral antibiotics + discharge
   C. Admit + IV antibiotics
   D. Return to theatre and explore
   E. Ice cream and cold fluids

Ans. The key is C. Admit + IV antibiotic. [infection is a common cause of secondary haemorrhage. Patient should be admitted to observe the course of bleeding and treatment is given with IV antibiotics].

8. A mentally retarded child puts a green pea in his ear while eating. The carer confirms this. Otoscopy shows a green colored object in the ear canal. What is the most appropriate single best approach to remove this object?
   A. By magnet
   B. Syringing
   C. Under GA
   D. By hook
   E. By instilling olive oil

Ans. The key is C. Under GA. [Pea is not a magnetic material and hence it cannot be removed by magnet, it will swell up if syringing is attempted, as hook placement is likely with risk of pushing the pea deeper it is not also suitable in a mentally retarded child, and olive oil is not of help in case of pea. So to avoid injury it is better to remove under GA].

9. A 32-year-old man presents with hearing loss. AC>BC in the right ear after Rhine test. He also complains of tinnitus, vertigo and numbness on same half of his face. What is the most appropriate investigation for his condition?
   A. Audiometry

B. CT
C. MRI
D. Tympanometry
E. Weber's test

Ans. The key is C. MRI. [features are suggestive of acaustic neuroma, so MRI is the preferred option].

10. A 31-year-old man has epistaxis 10 days following polypectomy. What is the most likely diagnosis?
    A. Nasal infection
    B. Coagulation disorder
    C. Carcinoma

Ans. The key is A. Nasal infection. [Infection is one of the most important cause of secondary hemorrhage].

11. A 5-year-old child complains of sore throat and earache. He is pyrexial. Examination: tonsils enlarged and hyperemic, exudes pus when pressed upon. What is the single most relevant diagnosis?
    A. Acute follicular tonsillitis
    B. Scarlet fever
    C. Agranulocytosis
    D. Acute OM

Ans. The key is B. Acute follicular tonsillitis. Tonsillitis is usually caused by a viral infection or, less commonly, a bacterial infection. The given case is a bacterial tonsillitis (probably caused by group A streptococcus). There are four main signs that tonsillitis is caused by a bacterial infection rather than a viral infection. They are:

- a high temperature
- white pus-filled spots on the tonsils
- no cough
- swollen and tender lymph nodes (glands).

12. A young patient is complaining of vertigo whenever she moves sideways on the bed while lying supine. What would be the most appropriate next step?
    A. Head roll test
    B. Reassure
    C. Advice on posture
    D. Carotid Doppler
    E. CT

Ans. The key is A. Head roll test. [this is a case of "benign paroxysmal positional vertigo" for which the diagnosis is made by head roll test].

13. A 26-year-old woman has become aware of increasing right sided hearing deficiency since her recent pregnancy. Her eardrums are normal. Her hearing tests show: BC-normal. Weber test lateralizes to the right ear. What is the single most likely diagnosis?
    A. Encephalopathy
    B. Functional hearing loss
    C. Tympano-sclerosis
    D. Otosclerosis
    E. Sensorineural deafness

Ans. The key is D. Otosclerosis. [There are no features of encephalopathy. As Weber test is lateralized it is unlikely to be functional hearing loss. In tympanosclerosis ear drum becomes chalky white. So as the ear drum is normal it is not tympanosclerosis. Weber test is lateralized to right and deafness is also on the right. So it not sensorineural deafness but conductive deafness which makes otosclerosis as the most likely diagnosis].

14. A 30-year-old lady has epistaxis for 30 mins. Her Hgb is normal, MCV normal, WBC normal, PT/APTT/Bleeding time are normal. Where is the defect?
    A. Plts
    B. Coagulation factor
    C. Sepsis
    D. Anatomical
    E. RBC

Ans. The key is D. Anatomical. [bleeding time, coagulation profile, Hb%, cell count and parameters are normal. So thelikely cause of bleeding here is anatomical defect].

15. A 52-year-old man whose voice became hoarse following thyroid surgery 1 week ago shows no improvement. Which anatomical site is most likely affected?
    A. Bilateral recurrent laryngeal nerve
    B. Unilateral recurrent laryngeal nerve
    C. Unilateral external laryngeal nerve
    D. Bilateral external laryngeal nerve
    E. Vocal cords

Ans. The key is B. Unilateral recurrent laryngeal nerve.

16. A 10-year-old girl has been referred for assessment of hearing as she is finding difficulty in hearing her teacher in the class. Her hearing tests show: BC normal, symmetrical AC threshold reduced bilaterally, weber test shows no lateralization. What is the single most likely diagnosis?
    A. Chronic perforation of tympanic membrane
    B. Chronic secretory OM with effusion
    C. Congenital sensorineural deficit
    D. Otosclerosis
    E. Presbycusis

Ans. The key is B. Chronic secretory OM with effusion.

17. A 4-year-old has earache and fever. Has taken paracetamol several times. Now it's noticed that he increases the TV volume. His preschool hearing test shows symmetric loss of 40db. What is the most likely diagnosis?
    A. OM with effusion
    B. Otitis externa
    C. Cholesteatoma
    D. CSOM
    E. Tonsillitis

Ans. The key is B. Otitis externa. [Otitis media with effusion does not present with earache and fever. The patient has otitis media with effusion from before but currently he has developed earache and fever and this is due to otitis externa. Please note diagnosis is made for recent complaints though other disease may co-exist!]

18. A 4-year-old boy who previously had normal hearing, has a mild earache relieved by paracetamol. He has been noticed to turn up the vol on the TV. He has bilateral dull tympanic membranes. His preschool hearing test shows symmetrical loss of 40dB. What is the single most likely diagnosis?
    A. Acute otitis externa
    B. Acute otitis media
    C. Ear wax
    D. Foreign body
    E. Otitis media with effusion

Ans. The key is E. Otitis media with effusion.

19. A teacher had a respiratory infection for which she was prescribed antibiotics. After the antibiotic course when she rejoined school, she lost her voice completely. What is the single most appropriate diagnosis?
    A. Recurrent laryngeal nerve palsy
    B. Angioedema
    C. Laryngeal obstruction by medication
    D. Laryngitis
    E. Functional dysphonia

Ans. The key is E. Functional dysphonia. [Functional dysphonia is poor voice quality without any obvious anatomical, neurological or other organic difficulties affecting the larynx or voice box. It is often secondary to viral infection].

20. A 25-year-old woman complains of dizziness, nausea, vomiting, visual disturbances and anxiety which keep coming from time to time. Most of the attacks are along with sudden change in posture. What is the most likely diagnosis?
    A. Panic disorder
    B. Carotid sinus syncope
    C. BPPV (benign paroxysmal positional vertigo)
    D. Vertebrobasilar insufficiency
    E. Postural hypotension

Ans. The key is C. Benign paroxysmal positional vertigo (BPPV). [Dizziness, nausea, vomiting and nystagmus which keep coming from time to time are common features of BPPV].

21. A 56-year-old male patient presents with intermittent vertigo, tinnitus and hearing loss. What is the best drug treatment for this patient?
    A. Buccal prochlorperazine
    B. Oral flupenphenazine
    C. TCA
    D. Gentamicin patch on the round window
    E. No med treatment available

Ans. The key is A. Buccal prochlorperazine. [Probable case of Menieres disease. Treated with prochlorperazine].

22. Patient had a fight following which he developed bleeding, ringing and hearing loss from one ear. What is the investigation of choice?
    A. CT
    B. XR skull
    C. Otoscopy
    D. MRI vestibule
    E. Coagulation study

Ans. The key is c. Otoscopy.

23. A 10-year-old male child was brought by his mother complaining that her child watches TV at very high volumes, doesn't like to play outside and instead has become more sincere with reading. She also says that her son doesn't respond to her. What do you expect to see on otoscopy?
    A. Flamingo pink tympanic membrane
    B. Attic perforation
    C. Bluish grey tympanic membrane with air fluid levels
    D. Inflamed tympanic membrane with cart wheel appearance of vessels
    E. Red and inflamed tympanic membrane

Ans. The key is C. Bluish grey tympanic membrane with air fluid levels. [In glue air there occur conductive deafness so the child watch TV with high volume and does not respond to others for this deafness].

24. A 5-year-old girl has had an URTI for 3 days and has been treated with paracetamol by her mother. For the last 12 hours she has been hot and irritable with severe pain in her right ear. What is the most likely diagnosis?
    A. Herpes zoster infection
    B. Impacted ear wax
    C. Mumps
    D. OM (otitis media)
    E. Perforation of eardrum

Ans. The key is D. OM.

25. A 28-year-old man complains of vertigo, nausea and vomiting for more than 30 mins and tinnitus, hearing loss in the left ear. What is the treatment for this patient?
    A. Buccal prochlorperazine
    B. Metachlorpromide
    C. Cyclazine
    D. Cotrimazole
    E. Ondansetron

    Ans. The key is A. Buccal prochlorperazine (patient.info). [Both prochlorperazine and cyclizine can be used in Meniere's disease].

26. A 25-year-old man presents with hoarseness of voice. He has swollen vocal cords. His BMI is 32 and he smokes 20-25 cigarettes/day. What would you advise him?
    A. Stop smoking
    B. Lose weight

Ans. The key is A. Stop smoking.

27. A patient presents with hemoptysis 7 days after tonsillectomy. What is the next step?
    A. Packing
    B. Oral antibiotics and discharge
    C. Admit and IV antibiotics
    D. Return to OT and explore
    E. Ice cream and cold fluids

Ans. The key is C. Admit and IV antibiotics. [Secondary hemorrhage can occur from sloughing of tissue from surgical wound following infection].

28. A 17-year-old lady presents with a worm in her ear. She is very agitated and anxious. What is the next step?
    A. Remove under GA
    B. Suction
    C. Alcohol drops
    D. Forceps

Ans. The key is C. Alcohol drops. [It is a living object. So it should be killed first and so alcohol drop is the correct option].

29. A patient with SNHL (sensry neural hearing loss) and loss of corneal reflex on the left side. What is the most definitive investigation?
    A. CT of internal auditory meatus
    B. Nuclear imaging of brain
    C. MRI of internal auditory meatus
    D. Radio isotope scan
    E. XR skull

Ans. The key is C. MRI of internal auditory meatus. [The likely cause is acaustic neuroma for which appropriate investigation is MRI internal acoustic meatus].

30. A 45-year-old woman presents with rotational vertigo, nausea and vomiting, especially on moving her head. She also had a similar episode 2yrs back. These episodes typically follow an event of runny nose, cold, cough and fever. What is the most probable diagnosis?
    A. Acoustic neuroma
    B. Meniere's disease
    C. Labyrinthitis
    D. BPPV
    E. Vestibular neuronitis

Ans. The key is E. Vestibular neuronitis. [Here no sensoryneural hearing loss (SNHL present in acoustic neuroma, Meniere's disease and labyrinthitis). Runny nose, cold, cough and fever are recognized trigger of vestibular neuronitis but not BPPV].

31. A child playing with toys suddenly develops breathlessness and stridor. Which investigation will lead to the diagnosis?
    A. Laryngoscopy
    B. CXR
    C. Peak flow meter
    D. ABG

Ans. The key is A. Laryngoscopy. [Breathlessness and stridor in a child playing with toy is most likely due to aspiration of foreign body (toy or part of toy) for which laryngoscopy should be done].

32. A boy injured his ear during a rugby match. He reported it being painful. Examination: red and tender pinna. Tympanic membrane was normal. What would be the next appropriate step?
    A. Topical gentamicin
    B. Oral flucloxacillin
    C. IV flucloxacillin
    D. Refer to ENT specialist
    E. No further intervention needed.

Ans. The key is E. No further intervention needed. [As tympanic membrane is normal so this transient inflammation of pinna from injury during rugby match is likely self limiting which needs no further intervention].

33. A 45-year-old man presents with hearing loss and tinnitus in the right ear. Examination: weber test lateralizes to the left. Audiometry: AC > BC in both ears. What is the next best investigation?
    A. CT
    B. MRI brain
    C. Angiogram
    D. Otoscopy

Ans. The key is B. MRI brain. [AC>BC indicate Rinne positive; i.e. The deafness is not conductive. Again hearing loss is on right side. Weber lateralized to left. We know weber lateralized to same side if

conductive deafness and to opposite if there is sensoryneural deafness. So it is now obvious that the deafness of right ear is sensoryneural deafness for which MRI brain is the next best investigation].

34. A 2-year-old child is brought by his mother. The mother had hearing impairment in her early childhood and is now concerned about the child. What investigation would you do?
    A. Audiometry
    B. Distraction testing
    C. Scratch test
    D. Tuning fork

Ans. The key is A. Audiometry. [Conditioned response audiometry 2-4 years, pure tone audio gram for greater than 5 years, less than 6 months otoacoustic emission or brainstem evoked response, distraction test for 6-18 months, OHCS ENT].

35. A 13-year-old girl complains of a 2 days history of hoarseness of voice along with dry cough. She feels feverish. On direct laryngoscopy, her vocal cords are grossly edematous. What is the single most appropriate investigation?
    A. None required
    B. Sputum for AFB
    C. Laryngoscopy
    D. Bronchoscopy
    E. XR cervical spine

Ans. The key is A. None required. [Diagnosis is laryngitis].

36. A 34-year-old man had a cold 2 days back. He now presents with right sided facial pain. What is the single most likely diagnosis?
    A. Maxillary sinus
    B. Ethmoid sinus
    C. Septal hematoma
    D. Septal abscess
    E. Allergic rhinitis

Ans. The key is A. Maxillary sinus. [Maxillary sinusitis].

37. A 29-year-old man with history of asthma comes with post nasal discharge and bilateral painless nasal blockage. What is the single most likely diagnosis?
    A. Nasal polyp
    B. Septal hematoma
    C. Septal abscess
    D. Atopic rhinitis
    E. Allergic rhinitis

Ans. The key is A. Nasal polyp.

38. A young girl returns from holidays in Spain. She complains of discharge from her ear and complains of tragal tenderness. Exam: tympanic membrane normal. Aural toilet has been done.

What is the next appropriate medicine?
A. Antibiotic PO
B. Antibiotic IV
C. Steroid PO
D. Steroid drop
E. Antibiotic drop with steroid

Ans. The key is E. Antibiotic drop with steroid. [Discharge from ear and tragal tenderness are features of otitis externa. Key treatment is aural toileting. Drop advised is Sofradex (Framycetin + dexamethasone)].

39. A 49-year-old man complains of fullness in his left ear, recurrent vomiting and tinnitus. What is the most appropriate medicine?
A. Buccal prochlorperazine
B. Oral chlorpheniramine
C. Oral flupenphenazine
D. Buccal midazolam
E. IV rantidine

Ans. The key is A. Buccal prochlorperazine. [Dilatation of the endolymphatic spaces of the membranous labyrinth causes sudden attacks of vertigo lasting ~2–4h (nystagmus is always present); or there may be increasing fullness in the ears ± tinnitus followed by vertigo. Symptoms often become bilateral. Fluctuating SNHL is common (may become permanent). Cause: A mystery! :Electrocochleography; posterior fossa MRI. : Acute: Prochlorperazine (Buccastem 3mg/8h bucally; short–term as vestibular sedative) Prophylaxis: betahistine 16mg/8h PO. Surgical approaches for persistent symptoms: Instillation of gentamicin via a grommet; Labyrinthectomy is 95% eff ective in controlling vertigo but causes total ipsilateral deafness; vestibular neurectomy (5% risk of hearing loss; 90% eff ective).Ref: OHCS, 10th edition, page 554].

40. A 4-year-old boy presents with fever, sore throat and lymphadenopathy. The diagnosis of tonsillitis has been made. He had 3 episodes last year. What is the most appropriate management for this patient?

A. Tonsillectomy

B. Paracetamol/ibuprofen

C. Oral penicillin V

D. IV penicillin

E. None

Ans. The key is B. Paracetamol/ibuprofen. This is wrong key! Correct key is C. Oral penicillin V. [One of the indications of antibiotics is presence of three or more centor criteria and as the patient fulfilled three centor criteria he should be given antibiotics. patient has the following three centor criteria: 1. history of fever 2. lymphadenopathy and 3. absence of cough.

Management of tonsillitis according to NICE guidelines are as follows:

• Antipyretic analgesics such as paracetamol and ibuprofen are of value.

• For most patients, antibiotics have little effect on the duration of the condition or the severity of symptoms. The National Institute for Health and Care Excellence (NICE) suggests that indications for antibiotics include:

Features of marked systemic upset secondary to the acute sore throat.

Unilateral peritonsillitis.

A history of rheumatic fever.

An increased risk from acute infection (such as a child with diabetes mellitus or immunodeficiency).

Acute tonsillitis with three or more of the following Centor criteria present:

History of fever

Tonsillar exudates

No cough

Tender anterior cervical lymphadenopathy. [Source: patient.info].

Indications for tonsillectomy:

• The child has five or more episodes of acute sore throat per year, documented by the parent or clinician.

• Symptoms have been occurring for at least a year.

• The episodes of sore throat have been severe enough to disrupt the child's normal behaviour or day-to-day functioning.

41. A 4-year-old boy presents with fever, severe earache, vomiting and anorexia. He also has moderatetonsillitis. Examination: tympanic membrane bulging. He came to the GP a few days ago and was diagnosed with URTI. What is the most appropriate diagnosis?
    A. OE
    B. Acute OM
    C. Serous otitis
    D. Chronic suppurative OM
    E. Mastoiditis

Ans. The key is B. Acute OM. [High fever, severe earache, vomiting, bulging tympanic membrane and H/O associated URTI is highly suggestive of acute OM].

42. A young child was brought by his mother to the OPD (out patient department) complaining that he raised the volume of the TV and didn’t respond to her when she called him. Exam: tympanic

membrane was dull greyish and no shadow of handle of malleus. What is the most probable diagnosis?
A. Chronic OM
B. Acute OM
C. Secretory OM
D. Otitis externa
E. Cholesteatoma

Ans. The key is C. Secretory OM.

43. An 8-year-old boy has his tonsils and adenoids removed. On the 7th post-op day, he comes back to the emergency department with hemoptysis and fever. What is the most appropriate management?
A. Admit for IV antibiotics
B. Prescribe oral antibiotics and discharge
C. Packing
D. Surgery
E. Reassurance

Ans. The key is A. Admit for IV antibiotic. [Most secondary hemorrhage occurs due to infection which erodes a vessel. So patient should be admitted for IV antibiotics].

44. A 35-year-old man presents with a headache that worsens on bending his head forward. What is the most likely diagnosis?
A. Chronic sinusitis
B. SAH
C. Migraine
D. Cluster headache
E. Tension headache

Ans. The key is A. Chronic sinusitis.

45. A 20-year-old man presents with painful swallowing. Examination: trismus and unilateral enlargement of his tonsils. The peritonsilar region is red, inflamed and swollen. What is the most appropriate treatment?
A. Oral antibiotics
B. IV antibiotics and analgesics
C. I&D with antibiotics
D. Analgesics with antipyretics
E. Tonsillectomy

Ans. The key is C. Incision and drainage with antibiotics. [The diagnosis isisperitnsillar abscess and treatment is I&D with antibiotics].

46. A 20-year-old woman with no previous history of ear complains, presents with 1 day history of severe pain in the right ear which is extremely tender to examine. What is the single most likely diagnosis?

A. Chondromalasia
B. Furuncle
C. Myringitis
D. OE (otitis externa)
E. OM (otitis media)

Ans. The key is D. OE. [Extreme tenderness to examine indicate otitis externa].

47. A 34-year-old man was slapped over his right ear in a fight. There is blood coming from his external auditory canal and he has pain, deafness and ringing in his ears. What is the most appropriate initial investigation?
    A. CT
    B. MRI
    C. Otoscopy
    D. Skull XR
    E. Facial XR

Ans. The key is C. Otoscopy. [Traumatic perforation of the tympanic membrane (TM) can cause pain, bleeding, hearing loss, tinnitus, and vertigo. Diagnosis is based on otoscopy. Treatment often is unnecessary. Antibiotics may be needed for infection. Surgery may be needed for perforations persisting more than 2 months, disruption of the ossicular chain, or injuries affecting the inner ear. Reference: Merck Manual (Prefessional version) [www.merckmanuals.com/professional/ear,-nose,-and-throat-disorders/middle-ear-and-tympanic-membrane-disorders/traumatic-perforation-of-the-tympanic-membrane].

48. A 36-year-old woman has an injury to the right external laryngeal nerve during a thyroid surgery. What symptom would be expected in this patient?
    A. Stridor
    B. Hoarseness
    C. Aphonia
    D. Dysphonia
    E. Aphasia

Ans. The key is D. Dysphonia. [External laryngeal nerve (smaller, external branch of the superior laryngeal nerve) lesion causes mono toned voice (loss of ability to produce pitched sound) that is dysphonia].

49. A 45-year-old woman has dull pain in her right ear which has been present for several weeks. There is no discharge. Chewing is uncomfortable and her husband has noticed that she grinds her teeth during sleep. The eardrum appears normal. What is the single most likely diagnosis?
    A. Dental caries
    B. Mumps
    C. OM
    D. Temporomandibular joint pain
    E. Trigeminal neuralgia

Ans. D. Temporomandibular joint pain. [Temporomandibular joint pain may cause pain in ear and teeth and grinding is a recognized cause of this symptom].

50. A patient presents with hemoptysis 7days after tonsillectomy and adenoidectomy. What is the next step of management?
    A. Explore again
    B. Pack it
    C. Oral antibiotics and discharge
    D. Admit and IV antibiotics
    E. Ice cream and cold fluid

Ans. The key is D. Admit and IV antibiotics. [secondary hemorrhage can occur due to infection causing sloughing out of part of arterial wall due to infection. It is managed by iv antibiotics folloing admitting the patient to hospital].

51. A 41-year-old man presents with longstanding foul smelling ear discharge and progressive hearing loss. Otoscopy showed perforation of the pars flacida and a mass in the upper part of the middle ear. What is the most likely diagnosis?
    A. ASOM
    B. CSOM
    C. Acquired cholesteatoma
    D. Congenital cholesteatoma
    E. Barotrauma

Ans. The key is C. Acquired cholesteatoma. [In congenital cholesteatoma there is usually no perforation. In acquired cholesteatoma perforation is in pars flaccida].

52. A 52-year-old male with poorly controlled DM has now presented to his GP with pain in the ear. Examination: skin around the ear is black in color and there was foul smelling discharge from the ear. Patient also had conductive hearing loss. What is the most probable diagnosis?
    A. Carbuncle
    B. Folliculitis
    C. Malignant OE
    D. Cholesteatoma
    E. Furuncle

Ans. The key is C. Malignant OE. [In some cases, otitis externa can spread to the outer ear and surrounding tissue, including the bones of the jaw and face. This infection is known as malignant otitis externa. Thogh the term malignant is used it is not a cancer].

53. A 10-year-old child has got progressive bilateral hearing loss. He has started to increase the TV volume. All other examination is normal. What is the most likely diagnosis?
    A. Wax
    B. Foreign body
    C. Bilateral OM with effusion
    D. SNHL
    E. Meningitis due to meningococcus

Ans. The key is C. Bilateral OM with effusion.

54. A 10-year-old boy presents with irritability, sudden onset of pain and discharge from the right ear. Which antibiotic would be the 1st line of treatment?
    A. Amoxicillin
    B. Ciprofloxacillin
    C. Flucloxacillin
    D. Ceftazidime
    E. Benzyl penicillin

Ans. The key is A. Amoxycillin. [For acute suppurative otitis media 1st line antibiotic in UK is Amoxycillin. Ref: patient.info].

55. A man developed intense pain after using the end of a pencil to scratch his inner ear. He took out the pencil from his ear and realized the end of the pencil with the rubber part is still stuck in his ear. What is the most appropriate management?
    A. Remove with a hook
    B. Instill olive oil
    C. Remove GA
    D. Remove with magnet instrument
    E. Do syringing

Ans. The key is A. Remove with a hook. [Place a hook behind the object and pull it out].

56. A 16-year-old boy presents with acute pain in the right ear and little bleeding from the same ear. He had been in a boxing match and had sustained a blow to the ear. There is little amount of blood in the auditory canal and a small perforation of the eardrum. What is the most appropriate management?
    A. Admission for parental antibiotics
    B. Nasal decongestant
    C. Oral amoxicillin
    D. OPD review
    E. Packing of ear
    F. Surgical intervention
    G. Syringing ENT

Ans. The key is C. Oral amoxicillin. [Small perforations are usually heal by themselves within 6-8 weeks and doctors often prescribe antibiotics to prevent infections during this healing period].

57. A 45-year-old man has noticed difficulty hearing on the telephone. He is concerned because his father has been moderately hard of hearing since middle age. BC=normal. An audiogram shows moderate hearing loss in both ears across all frequencies. What is the single most likely diagnosis?
    A. Acoustic neuroma
    B. Menieres' disease
    C. Noise induced deafness
    D. Otosclerosis

E. Presbyacusis

Ans. The key is D. Otosclerosis. [This patient has conductive hearing loss. So it is not acoustic neuroma. Meniere's disease has symptoms like vertigo, tinnitus, fullness, along with hearing loss. There is no history of noise pollution not presbycausis as his age is 45. So his deafness fits more with otosclerosis. These are by exclusion. Points in favour of otosclerosis: i) Conductive hearing loss. ii) Age of 45 yrs iii) Moderate hearing loss in both ears across all frequencies].

58. A 34-year-old man has supra-orbital pain and tenderness and developed tenderness over the maxilla. He also has mild fever. What is the single likely cause for these symptoms?
    A. Acute sinusitis
    B. GCA
    C. Trigeminal neuralgia
    D. Maxillary carcinoma

Ans. The key is A. Acute sinusitis. [There is supraorbital pain in frontal sinusitis and tenderness over maxilla in maxillary sinusitis. Also mild fever may present in acute sinusitis].

59. A 27-year-old female who had a RTA (road traffic accident) 7 months back now complaints of attacks of sudden onset rotational vertigo which comes on with sharp movements of the head and neck. Which of the following would be most helpful?
    A. Caloric testing
    B. Hallpikes maneuver
    C. Gutenbergers test
    D. Meniere's test
    E. Otoscopy

Ans. The key is B. Hallpikes maneuver. [Vertigo which comes on with sharp movement of the head and neck points towards the diagnosis of benign positional vertigo which can be demonstrated by Hallpikes maneuver].

60. A 2-year-old girl is brought to the emergency department by her mother. The child is screaming that there is something in her ear and she appears agitated. Exam: a plastic bead is seen inside the ear. What is the best method of removal?
    A. Forceps
    B. Hook
    C. Under general anesthesia
    D. Syringing
    E. Magnet

Ans. The key is C. Under general anaesthesia.

61. A patient, a small child presented with URTI (upper respiratory tract infection) and later developed fever, earache and tympanic membrane is dull. What is the likely diagnosis?
    A. OM
    B. OE
    C. Glue ear

D. Perforation of the tympanic membrane
E. Referred ear ache

Ans. The key is A. OM. [Fever, earache and dull tympanic membrane following urti are pointing the diagnosis of acute otitis media].

62. A 72-year-old male who is a regular smoker has come to the emergency department with complaints of loss of weight and loss of appetite. He also complains of odynophagia. Examination: actively bleeding ulcer on right tonsil. What is the most appropriate diagnosis?
    A. Tonsillar ca
    B. Vincent's angina
    C. Irritant ingestion
    D. Paracoccidiodmycosis
    E. Herpes simplex infection

Ans. The key is A. Tonsillar ca.

63. A patient with regular episodes of SNHL (sensory neural hearing loss), vertigo and tinnitus lasting >30min. Neurological examination normal. What is the likely diagnosis?
    A. Meniere's disease
    B. Acoustic neuroma
    C. Otosclerosis
    D. Benign positional vertigo
    E. Labrynthitis

Ans. The key is A. Meniere's disease. [SNHL vertigo andtinnitus lasting 30 minutes are consistent with Meniers disease. Here attacks are episodic that is symptoms resolves but hearing loss is progressive. In acoustic neuroma hearing loss is not episodic. Otosclerosis also not episodic and conductive type. Benign positional vertigo, no hearing loss and vertigo with sharp posture change. Unilateral loss of vestibular function and hearing associated with nausea and vomiting which is preceded by viral infection].

64. A 22-year-old man reports a 2 days history of hoarseness of voice. He denies any weight loss but he has been smoking for 4 years. What is the single most appropriate investigation?
    A. None
    B. Laryngoscopy
    C. Bronchoscopy
    D. BAL
    E. CXR

Ans. The key is A. None. [If horseness is of >3 weeks in man >50 yrs and smoker and heavy drinker to rule out cancer do CXR and\or laryngoscopy- NICE guideline].

65. A 62-year-old man presents with left sided hearing loss and tinnitus. He also complains of vomiting and headache. Examination: papilledema and SNHL (sensory neural hearing loss) in the left ear. What is the single most likely diagnosis?
    A. Meningioma

B. Nasopharyngeal ca
C. Acoustic neuroma
D. Pharyngeal ca
E. Meniere's disease

Ans. The key is C. Acoustic neuroma. [SNHL, tinnitus, papilledema (raised intracranial pressure) are suggestive of acoustic neuroma].

66. A 30-year-old lady complaining of right ear deafness with decreased corneal reflex and past pointing. Acoustic analysis shows SNHL (sensory neural hearing loss). What is the next most appropriate investigation to do?
    A. CT brain
    B. CT acoustic canal
    C. MRI brain
    D. MRI acoustic canal
    E. PET brain

Ans. The key is D. MRI acoustic canal. [Diagnosis is right sided acoustic neuroma].

67. A 7-year-old boy presents with epistaxis of 2 hours duration. The bleeding has been controlled. Investigation: Platelets 210, PT 13, APTT 42, bleeding time normal. Which of the following is the most likely diagnosis?
    A. Hemophilia
    B. Von willebrand disease
    C. ITP
    D. Vit K deficiency
    E. Liver disease
    F. Anatomical defect

Ans. The key is F. Anatomical defect.

68. A 43-year-old presents with severe vertigo on moving sidewards whilst sleeping. What test would you do to confirm the diagnosis?
    A. Hallpikesmaneovure
    B. Romberg's test
    C. Trendelenburg test
    D. Heel-shin test

Ans. The key is A. Hallpike maneovure. [Hallpike maneovure is the preferred method to detect benign positional vertigo].

69. A 23-year-old man is having difficulty in speaking following a stab wound to the right of his neck. On being asked to protrude his tongue, the tip deviated to the right. Which anatomical site is most likely to be affected?
    A. Facial nerve
    B. Hypoglossal nerve
    c. Vagus nerve

d. Trigeminal nerve
e. Glossopharyngeal nerve

Ans. The key is B. Hypoglossal nerve. [In hypoglossal nerve palsy the tongue will be curved toward the damaged side, combined with the presence of fasciculations or atrophy of tongue on same side].

70. A 10-year-old boy develops nasal bleeding. What is the best way to stop the bleeding from the nose?
    A. Pressure over base of the nose
    B. Ice packs
    C. Pressure over the soft tissues
    D. Nasal packing
    E. Surgery

Ans. The key is C. Pressure over the soft tissues.

71. A 38 -yeark-old man has just returned from a holiday where he went swimming everyday. For the last few days he has had irritation in both ears. Now his right ear is hot, red, swollen and acutely painful. What is the single most likely diagnosis?
    A. Foreign body
    B. Impacted earwax
    C. OE (otitis externa)
    D. OM (otitis media)
    E. Perforation of eardrum

Ans. The key is C. Otitis Externa. [The swimming history, irritation in both ears and ear being hot, red, swollen and painful indicates inflammation of the external acoustic meatus called Otitis Externa].

72. An 8-year-old girl has had left earache for 2 days. The earache subsided about 2 hours ago with the onset of a purulent discharge which relieved the pain. Her temperature is 39.2C. What is the SINGLE most appropriate antibiotic?
    A. Amoxicillin
    B. Ciprofloxacin
    C. Clindamycin
    D. Erythromycin
    E. Flucloxacillin

Ans. The key is A. Amoxicillin. [This is the picture of Acute Otitis Media which has led to tympanic membrane perforation. PO Amoxicillin for 7 days is the antibiotic of choice].

73. A 38-year-old woman has just returned from a holyday where he went swimming every day. For the last few days he has irritation in both ears. Now his right ear is hot, red, swollen and acutely painful. What is the most likely diagnosis?

A. Impacted wax
B. Mumps
C. Otitis media
D. Otitis externa

E. Perforation of ear drum.

Ans. D. Otitis externa. [Presentation may prompt one to think otitis media, but in swimming there is only exposure of external ear to the water and no other risk factor for otitis media!! So it is not otitis media but otitis externa].

74. A 7-year-old 7 days post tonsillectomy presents with nose bleed. He is currently not bleeding. What is the most appropriate treatment?

A. Apply pressure on the soft part
B. Antibiotics
C. Reassure
D. Surgical exploration
E. Local adrenaline

Ans. B. Antibiotics. [Bleeding from post operative site may occur from infection which causes necrosis and sloughing out of dead tissue. So such bleeding is treated by antibiotics to control risk of further bleeding].

75. A 32-year-old woman is having intermittent episodes of vertigo. Each episodes lasts up to 12 hours and is associated with tinnitus and hearing loss. Which is the single medication that may help in reducing the frequency of the vertigo episode?

A. Amitriptyline
B. Paroxetine
C. Cyclizine
D. Betahistine
E. Prochlorperazine

Ans. The key is D. Betahistine. [Case described is Menier's disease and to reduce the frequency of vertigo episodes (Prophylaxis) betahistine is given].

76. A mother brings her 2 days old baby worried she could be deaf. The mother is deaf herself and there is family history of deafness as well. What is the single most appropriate investigation?

A. Brainstem evoked response
B. Distraction
C. Tuning fork tests
D. Startle reflex
E. Audiogram

Ans. The key is A. Brainstem evoked response. [Birth to 6 months, Brainstem evoked response].

29. OPHTHALMOLOGY

1. A 67-year-old man has deteriorating vision in his left eye. He has longstanding COPD and is on multiple drug therapy. What single medication is likely to cause this visual deterioration?
   A. B2 agonist
   B. Corticosteroid
   C. Diuretic
   D. Theophylline

Ans. The key is B. Corticosteroid. [Prolonged corticostiroids [also topical i.e. eye drop] can cause cataract].

2. A 30-year-old woman had a gradual decrease of visual acuity since the last 3 years. Now she has a disability due to very low vision. What's the diagnosis?
   A. Glaucoma
   B. Cataract
   C. Macular degeneration
   D. Retinitis pigmentosa
   E. Keratitis

Ans. The key is D. Retinitis pigmentosa. [This is not angle closure glaucoma as angle closure glaucoma occurs usually after the age of 50; In open angle glaucoma visual loss is not evenly gradual rather occurs a bit suddenly at its later part. It is not cataract as cataract occurs usually in elderly. In macular degeneration near blindness does not occur rather causes inability to identify face or cannot read small prints; otherwise peripheral vision is not that depressed. In keratitis will be pain, redness, photophobia and vision is ok].

3. A man presents with outward deviation of his right eye and diplopia. Which nerve is affected?
   A. Left trochlear
   B. Left oculomotor
   C. Right trochlear
   D. Right abducens
   E. Right oculomotor

Ans. The key is E. Right oculomotor. [Likely affected muscle is right medial rectus supplied by right oculomotor. It is not right trochlear palsy as in such one iris will be higher than other].

4. A 48-year-old woman who has been taking medications for asthma for a long time has now presented with decreasing vision. What is the most probable cause for her decrease in vision?
   A. Inhaled salbutamol
   B. Inhaled steroids
   C. Aminophylline
   D. Beta-blockers
   E. Oral steroids

Ans. The key is E. Oral steroids. [Prolonged steroid use leads to cataract formation].

5. A hypertensive male loses vision in his left eye. The eye shows hand movement and a light shined in the eye is seen as a faint light. Fundus exam: flame shaped hemorrhages. The right eye is normal. What is the cause of this pts unilateral blindness?
   A. HTN retinopathy
   B. CRA thrombosis
   C. CRV thrombosis
   D. Background retinopathy
   E. Retinal detachmen

Ans. The key is C. central retinal vein thrombosis.

6. A 32-year-old woman had progressive decrease in vision over 3 years. She is now diagnosed as almost blind. What would be the mechanism?
   A. Cataract
   B. Glaucoma
   C. Retinopathy
   D. Uveitis
   E. Keratitis

Ans. The key is C. Retinopathy. [Cataract is unlikely at this age. Uveitis and iritis doesn't have such degree of vision loss and iritis and anterior uveitis have pain, redness and photophobia. Open angle glaucoma mostly occurs after the age of 50years. Answer should be retinopathy (example retinitis pigmentosa)].

7. An old woman having decreased vision can't see properly at night. She has changed her glasses quite a few times but to no effect. She has normal pupil and cornea. What is the most likely diagnosis?
   A. Cataract
   B. Glaucoma
   C. Retinal detachment
   D. Iritis
   E. GCA (giant cell arteritis)

Ans. The key is A. Cataract. [Age and normal pupil and cornea are suggestive of cataract. If it was glaucoma pupil would be a bit dilated and/or oval in shape].

8. A patient comes with sudden loss of vision. On fundoscopy the optic disc is normal. What is the underlying pathology?
   A. Iritis
   B. Glaucoma
   C. Vitreous chamber
   D. Retinal detachment

Ans. The Key is D. Retinal detachment. [At an early stage optic disc remains normal in retinal detachment].

Causes of sudden painless loss of vision:

- Retinal detachment
- Vitreous haemorrhage
- Retinal vein occlusion
- Retinal artery occlusion
- Optic neuritis
- Cerebrovascular accident

9. A 54-year-old myopic develops flashes of light and then sudden loss of vision. That is the single most appropriate treatment?
   A. Pan retinal photo coagulation
   B. Peripheral iridectomy
   C. Scleral buckling
   D. Spectacles
   E. Surgical extraction of lens

Ans. The key is C. Scleral buckling. [It is a case of retinal detachment with treatment option of scleral buckling].

10. A patient presents with a painful, sticky red eye with a congested conjunctiva. What is the most suitable treatment?
    A. Antibiotic PO
    B. Antihistamine PO
    C. Antibiotic drops
    D. Steroid drops
    E. IBS

Ans. The key is C. Antibiotic drops. [bacterial conjunctivitis is treated with antibiotic drops].

11. A 55-year-old man presents with mild headache. He has changed his spectacles thrice in 1 year. there is mild cupping present in the disc and sickle shaped scotoma present in both eyes. What is the single most appropriate treatment?
    A. Pan retinal photo coagulation
    B. Pilocarpine eye drops
    C. Corticosteroids
    D. Scleral buckling
    E. Analgesics alone

Ans. The key is B. Pilocarpine. [This is a case of open angle glaucoma, treatment is with pilocarpine].

12. A 62-year-old male comes to the GP complaining of double vision while climbing downstairs. Which of the following nerve is most likely involved?
    A. Abducens nerve
    B. Trochlear nerve
    C. Oculomotor nerve
    D. Optic nerve
    E. Trigeminal nerve

Ans. The key is B. Trochlear nerve. [oculomotor may cause palsy of inferior rectus, medial rectus and superior rectus causing double vision in multiple gaze! But trochlear involving superior oblique only causes diplopia in downgaze only].

13. A patient presents with progressive visual deterioration. Examination: large, multiple cotton wool spots in both eyes. What is the single most likely diagnosis?
    A. Kaposi's sarcoma
    B. Cryptosporidium
    C. CMV infection
    D. Pneumocystis carinii infection
    E. Cryptococcal infection

Ans. The key is C. CMV infection. [Large multiple cotton wool spots are seen in early stage of CMV retinitis].

14. A 40-year-old man has pain, redness and swelling over the nasal end of his right lower eyelid. The eye is watery with some purulent discharge. The redness extends on to the nasal peri-orbital area and mucoid discharge can be expressed from the lacrimal punctum. What is the single most appropriate clinical diagnosis?
    A. Acute conjunctivitis
    B. Acute dacrocystitis
    C. Acut iritis
    D. Retrobulbar neuritis
    E. Scleritis

Ans. The key is B. Acute dacrocystitis.

15. A 52-year-old male presents with sudden complete loss of vision from right eye. He also had been complaining of right sided headaches which would come up more on chewing. On fundoscopy, the retina was pale and a cherry red spot could be seen in the macular region. What caused this vision loss?
    A. CRAO (central retinal artery occlusion)
    B. CRVO (central retinal vein occlusion)
    C. Branch RAO (branch retinal artery occlusion)
    D. Branch RVO (branch retinal vein occlusion)
    E. Circumciliary vein occlusion

Ans. The key is A. CRAO. [Pale retina with cherry red spot in macular region is seen in CRAO].

16. A 48-year-old woman presents with left-sided severe headache. She also has a red, watering eye and complains of seeing colored haloes in her vision. What is the most appropriate next step?
    A. Measure IOP (intra ocular pressure)
    B. Relieve pain with aspirin
    C. 100% oxygen
    D. CT
    E. Relieve pain with sumatriptan

Ans. The key is A. Measure IOP. [Probable case of angle closure glaucoma requiring measurement of IOP to establish the diagnosis].

17. A 27-year-old female was brought to the emergency department by her friend from a movie theatre. She complains of sudden severe pain in the eye followed by vomiting and also was seeing colored halos. She gives a past history of recurrent headaches which used to resolve spontaneously. Examination: fixed, dilated ovoid pupil seen. What is the first investigation?
    A. CT head
    B. MRI orbits
    C. Blood culture and sensitivity
    D. Toxicology screen
    E. Applanation tonometry

Ans. The key is E. Applanation tonometry. [Darkness can cause dilatation of pupil (which occurred in the darkness of theatre room) which (halfway dilatation) most often precipitate acute attack of angle closure glaucoma and the test to diagnose this is applanation tonometry].

18. An old woman having decreased vision can't see properly at night. She has changed her glasses quite a few times but with no effect. She has normal pupils and cornea. What is the most likely diagnosis?
    A. Cataract
    B. Glaucoma
    C. Retinal detachment
    D. Iritis
    E. GCA

Ans. The key is A. Cataract. [glaucoma may have dilated oval pupil].

19. A 52-year-old man has a painful, red, photophobic right eye with slightly blurred vision and watering for 3days. He has had no such episodes in the past. On slit lamp examination there are cells and flare in the ant chamber and pupil is sluggish to react. What is the single most appropriate clinical diagnosis?
    A. Acute close-angle glaucoma
    B. Acute conjunctivitis
    C. Acute dacrocystitis
    D. Acute iritis
    E. Corneal foreign body

Ans. The key is D. acute iritis. [In iritis there is flares and cells in anterior chamber. In iritis pupil may be irregular but in angle closure glaucoma pupil is slightly dilated and oval in shape. In iritis there is no halo around light but in glaucoma there is halo around light].

20. A 23-year-old man comes with 2 day history of sticky greenish discharge from the eyes with redness. What is the single most appropriate option?
    A. Iris
    B. Ciliary body
    C. Cornea

D. Conjunctivitis
E. Sclera

Ans. The key is D. conjunctivitis. [Bacterial conjunctivitis can cause sticky greenish discharge].

21. A 45-year-old woman had her visual acuity checked at her local optician. 12 hours later she presents to the emergency department with severe pain and redness in her eye. What is the single most appropriate option?
    A. Iris
    B. Ciliary body
    C. Anterior chamber
    D. Posterior chamber
    E. Cornea

Ans. The key is C. Anterior chamber. [In acute angle closure glaucoma half-dilated pupil is the most likely position which precipitates an acute attack as the trabecular meshworks are mostly closed by peripheral anterior synechia of peripheral iris in this position. And mild illuminated darkened room like of an optician (also use of mydriatics accelerates this) or opera (cinema hall) are culprit to make this! As the block occurs in anterior chamber it is the likely option here].

22. A 75-year-old man who has DM and hypertension experiences acute monocular blindness which resolves after 1 hour. What is the most likely diagnosis?
    A. GCA
    B. Optic neuritis
    C. Lacunar infarct
    D. Pontine hemorrhage
    E. Amaurosis fugax

Ans. The key is E. Amourosis fugax. [Amaurosis fugax is a temporary loss of vision in one or both eyes due to a lack of blood flow to the retina].

23. A 55-year-old man who is hypertensive suddenly lost his vision. The retina is pale and fovea appears as a bright cherry red spot. What is the single most appropriate treatment?
    A. Pan retinal photocoagulation
    B. Corticosteroids
    C. Scleral buckling
    D. Surgical extraction of lens
    E. Pressure over eyeball

Ans. The key is E. Pressure over eyeball. [In central retinal artery occlusion (CRAO) retina becomes pale and fovea becomes cherry red. Hypertension is a major cause of CRAO. Apply direct pressure for 5-15 seconds, then release. Repeat several times. Ocular massage can dislodge the embolus to a point further down the arterial circulation and improve retinal perfusion].

24. A 30-year-old woman presents with acute headache. She complains of seeing halos especially at night. What is the single most likely defect?
    A. Paracentral scotoma

B. Mono-ocular field loss
C. Tunnel vision
D. Central scotoma
E. Cortical blindness

Ans. The key is C. Tunnel vision. [The diagnosis is glaucoma (headache and haloes especially at night). In glaucoma there occurs tunnel vision].

25. A 39-year-old male presents with visual symptoms. Ophthalmoscopy shows papilloedema. Which anatomical site is most likely to be affected?
    A. Optic nerve
    B. Optic disc
    C. Optic radiation
    D. Occulomotor nerve
    E. Optic chiasma

Ans. The key is B. Optic disc.

26. A patient with T1DM has a fundus showing micro-aneurysm and hard exudate. What is the single most likely diagnosis?
    A. Macular degeneration
    B. Hypertensive retinopathy
    C. MS
    D. Diabetic background retinopathy
    E. Proliferative DM retinopathy

Ans. The key is D. Diabetic background retinopathy. [Microenurism, hard exudates are seen in background diabetic retinopathy].

27. A patient with flame shaped hemorrhage on long term treatment with nifedipine. What is the single most likely diagnosis?
    A. Macular degeneration
    B. HTN retinopathy
    C. MS
    D. DM background
    E. Proliferative DM retinopathy
    F. SLE

Ans. The key is B. HTN retinopathy. [Stages of hypertensive retinopathy:

Grade 1:	Silver wiring
Grade 2:	1 + AV nipping
Grade 3:	2 + flame shaped hemorrhage
Grade 4:	3 + optic disc edema + macular star].

28. A 32-year-old man suffering from MS (multiple sclerosis) presents with blurring of vision. Ophthalmoscopy shows pallor of the optic disc. Which anatomical site is most likely to be affected?
    A. Optic nerve
    B. Optic disc
    C. Optic radiation
    D. Trigeminal
    E. Oculomotor nerve

Ans. The key is A. Optic nerve. [MS--optic neuropathy which affects optic nerve and long standing optic neuropathy can be seen as pallor of optic disc in opthalmoscope].

29. Which of the following is not a degenerative corneal disease?
    A. Band keratopathy
    B. Marginal dystropathy
    C. Fatty/lipid degeneration
    D. Mooren's ulcer
    E. Keratoconus

Ans. The key is D. Moorens ulcer. [All other options are degenrative disease of cornea except Mooren's ulcer which is a type of ulcerative keratitis].

30. A 28-year-old woman has been on treatment for RA (rheumatoid arthritis) for 3 years. She has gradual loss of vision in both eyes. Her IOP (intra-ocular pressure) is normal. Red reflex is absent in both eyes. What is the single most likely diagnosis?
    A. Cataract
    B. DM retinopathy
    C. Hypermetropia
    D. Macular degeneration
    E. HTN retinopathy

Ans. The key is A. Cataract. [Prolonged use of steroid (here in RA) is a known cause of cataract].

31. A 45-year-old man has had impaired vision and pain on eye movement in his left eye over the last 5 days. He also notes loss of color vision in the same eye. In the left eye, the visual acuity is up to counting fingers. When the pupil is stimulated with light, it dilates. His fundus is normal. What is the single most appropriate clinical diagnosis?
    A. Acute dacryocystitis
    B. Acute iritis
    C. Papillitis
    D. Retrobulbar neuritis
    E. Scleritis

Ans. The key is D. Retrobulbar neuritis. [Presentation can be described by either optic neuritis or retrobulbar neuritis. In optic neuritis there is disc pallor. As in this case disc is normal it is a case of retrobulbar neuritis].

32. A patient comes with sudden loss of vision. Examination: high BP. Fundoscopy: retina appears swollen. Which blood vessel occlusion is involved?
    A. Branch RVO
    B. Branch RAO
    C. CRAO
    D. CRVO

Ans. The key is D. CRVO.

33. An 84-year-old woman with drusen and yellow spots in the center of retina. What is the single most likely diagnosis?
    A. Macular degeneration
    B. HTN retinopathy
    C. MS
    D. DM background
    E. Proliferative DM retinopathy

Ans. The key is A. Macular degeneration. [In early disease, the macula shows yellowish-colored subretinal deposits called “drusen”].

34. A patient presents with headache, blurring of vision and acuity loss. On fundoscopy, dots and blots were noted with huge red swollen optic disc. What is the most probable diagnosis?
    A. CRAO (central retinal artery occlusion)
    B. Branch RAO
    C. CRVO (central retinal vein occlusion)
    D. Optic atrophy

Ans. The key is C. CRVO.

35. A 64-year-olddiabediic has come for a routine eye check up. Fundoscopy: new vessels all over the retina. What is the most appropriate management?
    A. Strict sugar control
    B. Regular eye check ups
    C. Non urgent referral to specialist
    D. Laser photocoagulation
    E. Insulin

Ans. The key is D. Laser photocoagulation. [Neovascularization suggests proliferative diabetic retinopathy which is treated with laser photocoagulation].

36. A 7-year-old boy presents with proptosis and periorbital edema. What is the immediate action that needs to be taken?
    A. IV morphine and immediate ophthalmoscopy
    B. IV morphine
    C. Observation only

Ans. The key is A. IV morphine and immediate ophthalmoscopy.

37. A 37-year-old laborer comes with hours of redness of left eye with foreign body sensation in the same eye. What is the single most appropriate option?
    A. Ciliary body
    B. Sclera
    C. Conjunctivitis
    D. Cornea
    E. Iris

Ans. The key is D. Cornea. [Redness with foreign body sensation of eye in a labourer are most likely due to foreign body in cornea].

38. A patient with sudden severe eye pain, red eye, visual blurring, acuity of only finger counting, nausea, vomiting with a shallow ant chamber that is hazy on shining a torch. What is the diagnosis?
    A. CRVO
    B. Acute closed angle glaucoma
    C. Uveitis
    D. Iritis
    E. Open angle glaucoma

Ans. The key is B. Acute closed angle glaucoma. [Sudden severe eye pain, red eye, visual blurring, acuity of only finger counting, nausea, vomiting, shallow anterior chamber that is hazy on shining torch are all classic presentation of acute closed angle glaucoma].

39. A 75-year-old man with declining vision, cornea and pupils are normal, fundus shows obscured margins. What is the single most likely diagnosis?
    A. Macular degeneration
    B. HTN retinopathy
    C. MS (multiple sclerosis)
    D. DM background
    E. Proliferative DM retinopathy

Ans. The key is a. Macular degeneration. [In a 75yrs old man with normal cornea and pupils and papilloedema suggests macular degeneration].

30. ANATOMY

1. A woman comes with an ulcerated lesion 3 cm in the labia majorum. What is the lymphatic drainage of this area?
    A. External iliac
    B. Superficial inguinal lymph nodes
    C. Para-aortic
    D. Iliac
    E. Aortic

Ans. Key is B. Superficial inguinal lymph nodes.

2. A 46-year-old man is being treated for a pleural effusion. A chest drain has been sited just below the 4th rib in the mid-axillary line on his right side. What single structure is at particular risk of injury?
   A. Arzygos vein
   B. Diaphragm
   C. Intercostal artery
   D. Internal thoracic artery
   E. Liver

Ans. The key is C. Intercostal artery. [Most vulnerable structure is intercostal nerve, then intercostal artery then intercostals vein. As intercostal nerve is not in option intercostal artery is the answer here].

3. A 12-year-old boy presents with painful swollen knee after a sudden fall. Which bursa is most likely to be affected?
   A. Semimembranous bursa
   B. Prepatellar bursa
   C. Pretibial bursa
   D. Suprapatetaller bursa

Ans. The key is B. Prepatellar bursa. [A fall onto the knee can damage the prepatellar bursa. This usually causes bleeding into the bursa sac causing swollen painful knee. Prepatellar bursitis that is caused by an injury will usually go away on its own. The body will absorb the blood in the bursa over several weeks, and the bursa should return to normal. If swelling in the bursa is causing a slow recovery, a needle may be inserted to drain the blood and speed up the process. There is a slight risk of infection in putting a needle into the bursa].

4. A 34-year-old man with a white patch on the margin of the mid-third of the tongue. Which is the single most appropriate lymph nodes involved?
   A. External iliac lymph nodes
   B. Pre-aortic lymph nodes
   C. Aortic lymph nodes
   D. Inguinal lymph nodes
   E. Iliac lymph nodes
   F. Submental lymph nodes
   G. Submandibular lymph nodes
   H. Deep cervical lymph nodes

Ans. The key is G. Submandibular lymph nodes.

5. A 63-year-old lady with a BMI=32 comes to the ED with complaints of pigmentation on her legs. Examination: dilated veins could be seen on the lateral side of her ankle. Which of the following is involved?
   A. Short saphenous vein
   B. Long saphenous vein
   C. Deep venous system

D. Popliteal veins
E. Saphano-femoral junction

Ans. The key is A. Short saphenous vein. [short saphenous vein travels lateral aspect of ankle while great or long saphenous vein travels medial aspect of ankle].

6. A 40-year-old woman suddenly collapsed and died. At the post-mortem autopsy, it was found that there a bleed from a berry aneurysm from the circle of Willis. In which space did the bleeding occur?
   A. Subarachnoid
   B. Subdural
   C. Extradural
   D. Subparietal
   E. Brain ventricles

Ans. The key is A. Subarachnoid.

7. A 37 year-old-man with an ulcer on the medial malleolus. Which of the following lymph nodesare involved?
   A. External iliac lymph nodes
   B. Pre-aortic lymph nodes
   C. Aortic lymph nodes
   D. Inguinal lymph nodes
   E. Iliac lymph nodes
   F. Submental lymph nodes
   G. Submandibular lymph nodes
   H. Deep cervical lymph nodes

Ans. The key is D. Inguinal lymph nodes.

8. L1 level, what is the most appropriate landmark?
   A. Mcburney's point
   B. Stellate ganglion
   C. Deep inguinal ring
   D. Termination of the spinal cord
   E. Transpyloric plane

Ans. The given key is E. Transpyloric plane. [The termination of the spinal cord is between L1 and L2 (variable between people). L1 landmark- duodenum first part, superior mesenteric artery, hila of both kidneys, upper border of pancreas, splenic artery, pylorus and fundus of gall bladder].

9. Midpoint between the suprasternal notch and pubic symphysis. What is the single most appropriate landmark?
   A. Fundus of the gallbladder
   B. Mcburney's point
   C. Stellate ganglion
   D. Deep inguinal ring

E. Transpyloric plane

Ans. The key is E. Transpyloric plane.

10. Tip of the 9th costal cartilage. What is the single most appropriate landmark?
    A. Fundus of the gallbladder
    B. Deep inguinal ring
    C. Termination of the spinal cord
    D. Transpyloric plane
    E. Vena cava opening in the diaphragm

Ans. The key is A. Fundus of the gallbladder.

11. Just above the mid-inguinal point. What is the single most appropriate landmark?
    A. Femoral artery pulse felt
    B. Mcburney's point
    C. Stellate ganglion
    D. Deep inguinal ring
    E. Transpyloric plane

Ans. The key is D. Deep inguinal ring.

12. 5th ICS (intercostal space) in the anterior axillary line. What is the single most appropriate landmark?
    A. Apex beat
    B. Chest drain insertion
    C. Stellate ganglion
    D. Transpyloric plane
    E. Vena cava opening into the diaphragm

Ans. B. Chest drain insertion.

13. Which artery runs in the anterior inter-ventricular groove?
    A. Acute marginal branch
    B. Left anterior descending artery
    C. Septal branches
    D. Circumflex artery
    E. Right coronary artery

Ans. B. Left anterior descending artery.

14. A 62-year-old man with rheumatoid arthritis struck his hand against a door. He subsequently found that although he could extend the interphalangeal joint of his right thumb, the MCP (metacarpophalengeal joint of the thumb remained flex. What is the single most likely tendon to have been damaged?
    A. Extensor carpi ulnaris
    B. Extensor digitorum

C. Extensor indicis
D. Extensor pollicis brevis
E. Extensor pollicis longus

Ans. The key is D. Extensor pollicis brevis. [Action of extensor pollicis brevis is extension of thumb at metacarpophalangeal joint. Extensor pollicis longus extends the terminal phalanx of the thumb].

15. A 55-year-old man presents with an ulcer of the scrotum. Which of the following lymph nodesare involved?
    A. External iliac lymph nodes
    B. Pre-aortic lymph nodes
    C. Aortic lymph nodes
    D. Inguinal lymph nodes
    E. Iliac lymph nodes
    F. Submental lymph nodes
    G. Submandibular lymph nodes
    H. Deep cervical lymph nodes

Ans. The key is D. Inguinal lymph nodes.

16. A 73-year-old woman with RA (rheumatoid arthritis) is unable to extend the fingers of her right hand at the MCP joint and IP joints following a fall. What is the single most likely tendon to have been damaged?
    A. Extensor carpi radialis
    B. Extensor carpi ulnaris
    C. Extensor digitorum
    D. Extensor indicis
    E. Flexor digitorum profundum

Ans. The key is C. Extensor digitorum. [The extensor digitorum extends the phalanges, then the wrist, and finally the elbow. It acts principally on the proximal phalanges].

17. In perforation of a post gastric ulcer, where will the fluid accumulate in the peritoneal cavity?
    A. Left paracolic gutter
    B. Pelvic cavity
    C. Lesser sac
    D. Under the diaphragm
    E. Right paracolic gutter

Ans. The key is C. Lesser sac.

18. A 55-year-old lady with swelling on the abdomen below the umbilicus on the right side. What is the single most appropriate lymph node?
    A. External iliac lymph nodes
    B. Pre-aortic lymph nodes
    C. Aortic lymph nodes
    D. Inguinal lymph nodes

E. Iliac lymph nodes
F. Submental lymph nodes
G. Submandibular lymph nodes
H. Deep cervical lymph nodes

Ans. The key is D. Inguinal lymph nodes.

19. Anatomical structure to be pierced during surgery midline port during gallstone removal.
    A. External iliac muscle
    B. Cricoid cartilage
    C. Linea alba
    D. Rectus sheath muscle
    E. Duramater
    F. 1st tracheal cartilage
    G. Conjoined tendon
    H. Intercostal muscles

Ans. The key is C. Linea alba.

20. Inserting a drain in the mid-axillary line. What is the single most appropriate anatomical structure?
    A. External iliac muscle
    B. Linea alba
    C. Rectus sheath muscle
    D. Conjoined tendon
    E. Intercostal muscles

Ans. The key is E. Intercostal muscles.

21. Removal of a glioma, which single most appropriate anatomical structure will be pierced?
    A. Cricoid cartilage
    B. Rectus sheath muscle
    C. Duramater
    D. Conjoined tendon
    E. Intercostal muscles

Ans. The key is C. Duramater.

22. A child is not breathing and intubation failed. At what anatomical site should the incision be made?
    A. External iliac muscle
    B. Cricoid cartilage
    C. Linea alba
    D. Rectus sheath muscle
    E. Duramater
    F. 1st tracheal cartilage
    G. Conjoined tendon

H. Intercostal muscles

Ans. The key is B. Cricoid cartilage. [Incision for tracheostomy is done which goes down from cricoids cartilage].

23. A middle aged woman has some weakness of hand after an injury. Which vertebra will be the lowest to be included on cervical XR to diagnose the injury?
    A. C7/T1
    B. C8/T1
    C. C5/C6
    D. C6/C7

Ans. The key is A. C7/T1.

24. A 67-year-old lady with an ulcer on the anal margin. Which is the single most appropriate lymph nodes involved?
    A. External iliac lymph nodes
    B. Pre-aortic lymph nodes
    C. Aortic lymph nodes
    D. Inguinal lymph nodes
    E. Iliac lymph nodes

Ans. The key is D. Inguinal lymph nodes. [Anal canal below pectinate line is drained into superficial inguinal lymph nodes].

25. The artery that runs along the left AV (atrio ventricular) groove. What is the single most appropriate option?
    A. Left internal mammary artery
    B. Left anterior descending artery
    C. Circumflex artery
    D. Left main stem (LMS) post descending artery
    E. Diagonal branch

Ans. The key is C. Circumflex artery.

26. An 89-year-old man presents with carcinoma of posterior oropharynx. Which is the single most appropriate lymph node involved?
    A. Pre-aortic lymph nodes
    B. Aortic lymph nodes
    C. Submental lymph nodes
    D. Submandibular lymph nodes
    E. Deep cervical lymph nodes

Ans. The key is E. Deep cervical lymph nodes.

27. During a laparoscopic procedure, a trochar is inserted halfway between the umbilicus and the ant superior iliac spine. What are the structures most likely to be pierced?

A. Rectus sheath
B. Linea alba
C. External oblique aponeurosis
D. Internal oblique and transverse abdominal
E. Both C and D

Ans. The key is D. Internal oblique and transversus abdominis.

28. The artery that runs in the ant inter-ventricular groove. What is the single most appropriate option?
    A. Acute marginal branch
    B. Left ant descending artery
    C. Coronary sinus
    D. Circumflex artery
    E. Right coronary artery

Ans. The key is B. Left ant descending artery.

29. In a laparoscopic mesh repair for hernia, when the trochar is inserted at midpoint between umbilicus and ischial spine. What structure will be pierced?
    A. Linea alba
    B. Rectus muscle
    C. Conjoint tendon
    D. External and internal oblique muscles
    E. Inguinal ligament

Ans. The key is D. External and internal oblique muscles.

30. A patient has loss of sensation on the tip of her tongue and the inner aspect of the lip. Which nerve is most likely to be involved?
    A. Vagus nerve
    B. Glossopharyngeal nerve
    C. Lingual nerve
    D. Buccal nerve
    E. Facial nerve

Ans. The key is C. Lingual Nerve.

31. A 40-year-old man presents with headache, vomiting and fever. He has been diagnosed with meningitis. Which of the following is a correct landmark to perform a lumber puncture?

A. L4
B. Iliac crest
C. Superior posterior iliac spine
D. Cox cocedeus
E. L5 vertebrea

Ans. The key is B. Iliac crest. [Lumber puncture is done in the L3-L4 interspace by palpating the right and left posterior superior spines of iliac crest and moving the fingers medially towards the spine].

32. A man was involved in a fight and sustained a blow to his mastoid bone. Which one is fractured?
    A. Sphenoid bone
    B. Mandibular bone
    C. Temporal bone
    D. Parietal bone
    E. Occipital bone

Ans. The key is C. Temporal bone. [The temporal bone consists of four parts— the squamous, mastoid, petrous and tympanic parts].

33. A 41-year-old woman has varicose vein on the lateral side of her right lower leg. The vein is tortuous and dilated. Which vein is likely to be involved?
    A. Popliteal vein
    B. Profunda femoris vein
    C. Renal vein
    D. Short sephanous vein
    E. Axillary vein

Ans. D. Short sephanous vein. [Short sephanous vein courses through lateral side of the leg while long or great sephanous vein courses medially].

34. A 60-year-old has pain and stiffness of his left leg. His calf is swollen and feels hard. Which vein is likely to be involved?
    A. Inferior vena cava
    B. Internal iliac vein
    C. Internal jugular vein
    D. Long sephanous vein
    E. Popliteal vein

Ans E. popliteal vein.

31.STATISTICS

1. In a group of cancer patients, 10 died that wasn't treated while 5 died in the treatment group. Whichstatement is correct?
    A. Absolute risk =10
    B. Relative risk =10
    C. Relative risk =5
    D. Absolute risk=5
    E. Relative risk=2

Ans. Given key is E. relative risk = 2. [RR (realativerisk)= Number of death in not treated group/number of death in treated group].

2. A new screening test has been devised to detect early stages of prostate cancer. However, the test tends to diagnose a lot of peapel with no cancer, although they do have cancer as diagnosed by other standard tests. What is this flaw called?
   A. False positive
   B. True positive
   C. False negative
   D. True negative
   E. Poor specificity

Ans. The key is C. False negative.

3. A study was done amongst 2 hospital for the equal number of cancer patients. It was noted that hospital A had the higher rate of mortality than hospital B for treated cancer patients. What is the study done here classified as?
   A. Retrospective
   B. Observational
   C. Cohort
   D. Case study

Ans. The key is C. Cohort study. [A cohort is a group of people who share a common characteristic or experience within a defined period (e.g., are born, are exposed to a drug or vaccine or pollutant, or undergo a certain medical procedure].

4. A town has a population of 500,000. In a five year period there are 1250 cases of bladder cancer diagnosed at the only hospital. During the same period the occupational health department diagnosed a further 500 cases. What is the annual incidence per million of bladder cancer in this population?
   A. 2100
   B. 1750
   C. 1400
   D. 700
   E. 350
   Ans. The key is D. 700.

5. Each year 950000 peaple develop MI in a population of 250000 million. Out of these, 215000 die and 112500 in the first hour. What is the incidence of MI?

A. 112500 in 215000 million
B. 112500 in 250000 million
C. 215000 in 950000 million
D. 215000 in 250000 million
E. 950000 in 250000 million

Ans. The key is E. 950000 in 250000 million.